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## **A checklist of the moray eels of the world (Teleostei: Anguilliformes: Muraenidae)**

DAVID G. SMITH

*Smithsonian Institution, Museum Support Center, MRC-534, 4210 Silver Hill Road, Suitland, MD 20746, Email: smithd@si.edu*



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## Abstract

A checklist of the currently recognized species of moray eels (Muraenidae) is presented. One hundred ninety seven species are considered to be valid, in 15 genera, and two subfamilies. The account for each valid species contains bibliographic information for that species and all synonyms, including primary type specimens and type locality. Also given for each species is the number of vertebrae, the mean vertebral formula (MVF), the general geographic distribution, and any explanatory remarks that may be needed. A list of nominal genera and species is given, with the current status of each. Separate lists are provided for names that cannot be assigned to known species (*incertae sedis*) and those that are unavailable.

## Introduction

The family Muraenidae, whose members are commonly known as moray eels, is one of the most abundant and diverse of the true eels, order Anguilliformes. Only the Ophichthidae may exceed it in number of species. Morays occur worldwide in tropical and subtropical seas. They range from the shoreline to the edge of the continental shelf. They form a large and ecologically important component of the coral-reef habitat, where they inhabit holes and crevices, coming out to feed on a wide variety of fishes and invertebrates. They exhibit a bewildering variety of color patterns, from uniform brown or green to complex patterns of spots, bars, reticulations, and rosettes, in colors ranging from red to yellow to green to brown to white.

Morays are specialized in many ways and are highly consistent in these specializations. All morays lack pectoral fins after metamorphosis; even in the larvae, the pectoral fins are greatly reduced. The gill opening is reduced to a small pore on the side of the head. The lateral line lacks pores on the body except for a few at the anteriormost end. Cephalic pores are reduced to a stereotyped pattern. In all except one genus, the supraorbital canal has only three pores, two at the anterior end of the snout and one on top of the snout near the anterior nostril. The genus *Anarchias* is exceptional in having a fourth pore adjacent to the posterior nostril. The infraorbital canal contains three or four pores (usually four) along the upper jaw. The preoperculo-mandibular canal usually has six pores along the lower jaw. There are no pores behind the eye or in the supratemporal commissure. Morays have well developed pharyngeal jaws, which play an important role in their feeding behavior. Like all true eels, morays

have a peculiar larval form called a leptocephalus. Few muraenid leptocephali have been identified to the species level so far, and their significance in assessing relationships has yet to be exploited.

Aside from the Anguillidae, morays are probably the eels most familiar to the general public. They have a somewhat exaggerated reputation for ferocity, but, like most animals, they tend to mind their own business if left alone.

Classification of moray eels is still very much a work in progress, and we are not yet close to a definitive phylogeny. The definition and boundaries of genera are still uncertain. This paper is by no means a final inventory of all the moray species in the world. The family is still imperfectly known, and new species are continually being discovered and described. Rather, it should be read as a status report, a snapshot in time as of the publication date.

## Methods

The reference to the original description of each species contains, in order, the author(s) and date, page and figure number(s), the type locality in parentheses, and the type specimens. For locality data, the abbreviation “I.” refers to a single island, “Is.” refers to an island group. Localities are generally cited as they appeared in the original publication; alternative names or clarifications are given in square brackets. Compass directions are given as lower case letters (n, s, e, w). When a particular reference appeared as a separate in addition to the regular journal volume, the page and figure numbers in the separate are given in square brackets, when these differ from the journal pages. As the number of vertebrae constitutes an important distinguishing character for eel species, vertebral counts are given for each valid species, in the order predorsal, preanal, and total. These counts are taken from a variety of sources, both published literature and from unpublished records. The mean vertebral formula (MVF) is presented where available. For genera, the gender and the type designation are given. The geographical distribution of each species is given, usually in general terms. Additional information and discussion of nomenclatural issues is given under Remarks. Institutional abbreviations are as listed at <http://www.asih.org/codons.pdf>, with the following additions. AHF refers to the Alan Hancock Foundation, whose collection is now housed at the Los Angeles County Museum of Natural History. BSMP refers to the Philippine Bureau of Science museum, Manila, which was destroyed during World War II. SAIAB refers to the South African Institute of Aquatic Biodiversity, Grahamstown; this replaced RUSI, which is no longer used. The electronic edition of Eschmeyer’s Catalog of Fishes was consulted for bibliographic details (Eschmeyer, 2012). Provisions of the Fourth Edition of the International Code of Zoological Nomenclature are followed in all cases.

## Family Muraenidae Rafinesque 1810

morays

### Subfamily Muraeninae

Muraenidi Rafinesque 1810b: 44. *Muraena* Linnaeus 1758.

Murenides Risso 1827: 103. *Murena* [= *Muraena*] Linnaeus 1758.

Muraeninae Kaup 1856b: 55 (subfamily). *Muraena* Linnaeus 1758.

Thyrsoideinae Kaup 1856b: 71 (subfamily). *Thyrsoidea* Kaup 1856.

Gymnothoracoidei Bleeker 1864–65: 6. *Gymnothorax* Bloch & Schneider 1801.

Muraenophides Bleeker 1864–65: 6 (subfamily). *Muraenophis* Lacepède 1803.

Echidnidae Fowler 1928: 48. *Echidna* Forster 1788.

### Genus *DIAPHENCHELYS* McCosker & Randall 2007

*Diaphenchelys* McCosker & Randall: 2007: 470. Type species *Diaphenchelys pelonates* McCosker and Randall 2007, by original designation. Feminine.

#### *Diaphenchelys pelonates* McCosker & Randall 2007

*Diaphenchelys pelonates* McCosker & Randall 2007: 471, figs. 1–7 (Flores, Indonesia). Holotype BPBM 32205.

VERTEBRAE: 6, 55–58, 153–155 (MVF 6, 56, 154).

DISTRIBUTION: Indonesia.

### Genus *ECHIDNA* Forster 1788

*Echidna* Forster 1788: 181. Type species *Muraena echidna* Gmelin 1789, by tautonymy. Feminine.

*Megaderus* Rafinesque 1815: 220. Unneeded replacement name. Masculine.

*Molari* Richardson 1848: 79. Type species *Muraena ophis* Rüppell 1830, by subsequent designation (Jordan & Evermann 1896: 402, spelled *Molarius*). Masculine. Perhaps not originally intended as a genus, but as a division in a key to species based on teeth.

*Poecilophis* Kaup 1856a: 66. Type species *Gymnothorax catenatus* Bloch 1795, by subsequent designation (Jordan & Evermann 1896: 402). Masculine.

*Leihala* Jordan 1925: 5. Type species *Poecilophis tritor* Vaillant & Sauvage 1875, by original designation. Feminine.

#### ***Echidna amblyodon* (Bleeker 1856)**

*Muraena amblyodon* Bleeker 1856c: 72 (Manado, Sulawesi [Celebes], Indonesia). Holotype (unique), BMNH 1867.11.28.318.

VERTEBRAE: 6–7, 45–46, 100–102 (MVF 6, 46, 101).

DISTRIBUTION: Western Pacific.

#### ***Echidna catenata* (Bloch 1795)**

*Gymnothorax catenatus* Bloch 1795: 84, ll. 415 (Suriname). Holotype (unique), ZMB 4012.

*Muraenophis catenula* Lacepède 1803: 628, 641. (Suriname). No types known.

*Muraena sordida* Cuvier 1816: 233 (No locality). No types known. Based on *Muraena seu conger brasiliensis* Seba 1738, a pre-Linnaean name.

*Muraenophis zebra* Lesueur 1825: 107, pl. 4 (fig. 2) (Barbados, West Indies). No types known.

*Muraena alusis* Bleeker 1856c: 67. No types known. A replacement name for Atlantic *catenatus*, thought to be Indo-Pacific.

*Echidna fuscomaculata* Poey 1867: 263 (Cuba). No types known.

*Echidna flavofasciata* Poey 1867: 264 (Cuba). Holotype, not found.

VERTEBRAE: 5–7, 56–61, 114–122 (MVF 6, 58, 117).

DISTRIBUTION: Western and central Atlantic.

#### ***Echidna delicatula* (Kaup 1856)**

*Poecilophis delicatulus* Kaup 1856a: 67 (Molucca Is., Indonesia). Holotype (unique), RMNH 7212.

*Echidna trossula* Jordan & Starks in Jordan & Seale 1906: 203, fig. 8. (Apia, Upolu I., Western Samoa). Holotype, USNM 51714.

*Gymnothorax efatensis* Herre 1935: 384 (Vila, Efaté I., Vanuatu [New Hebrides], from stomach of sea snake). Holotype (unique), FMNH 17193.

VERTEBRAE: 6–8, 46–49, 106–111 (MVF 7, 48, 109).

DISTRIBUTION: Western Pacific.

#### ***Echidna leucotaenia* Schultz 1943**

*Echidna leucotaenia* Schultz 1943: 22, pl. 3 (Reef of Enderbury I., Phoenix Is., 3°08'30"S, 171°05'34"W). Holotype, USNM 115949.

VERTEBRAE: 5–7, 50–53, 122–130 (MVF 6, 51, 126).

DISTRIBUTION: Indo-West Pacific.

#### ***Echidna nebulosa* (Ahl 1789)**

*Muraena nebulosa* Ahl 1789: 7, pl. 1 (right fig) (East Indies). No types known to exist, although Fricke (1999: 42) designated the illustrated specimen as the lectotype.

*Muraena echidna* Gmelin 1789: 1135 (Palmerston I., central Pacific). No types known.

*Echidna forsteri* Walbaum 1792: 695 A new name for *Muraena echidna* Gmelin.

*Gymnothorax echidna* Forster in Bloch & Schneider 1801: 526 (Huahina [Huahine] I., Society Is.). Holotype (unique), ZMB 4000.

*Muraena ophis* Rüppell 1830: 116, pl. 29 (fig. 2) (Red Sea). Holotype (unique), SMF 19. Preoccupied by *Muraena ophis* Linnaeus 1758. No types known.

*Muraena variegata* (ex Forster) Richardson, 1848: 94, pl. 47 (Figs. 1–5). Preoccupied by *Muraena variegata* Rafinesque 1810. No types known.

*Muraena cerinonigra* Richardson 1846: 314. No types; based on a drawing.

*Muraena auloptera* De Filippi 1853: 168 [6] (Mauritius). Holotype (unique), MZUT 235.

*Muraena boschii* Bleeker 1853a: 52 (Sibogha, w Sumatra, Indonesia). Holotype (unique), RMNH 7205.

*Echidna cocosa* Garman 1899: 313 (Cocos I., e Pacific). Holotype (unique), MCZ 28452.

VERTEBRAE: 5–7, 56–59, 121–126 (MVF 6, 57, 122).

DISTRIBUTION: Indo-West Pacific; Eastern Pacific; common and widely distributed.

REMARKS: *Muraena variegata* Richardson appeared in synonymy and was attributed to Forster. Forster's name, however, was never published and is unavailable. The name is preoccupied by *Muraena variegata* Rafinesque 1810 and *Muraena variegata* Quoy and Gaimard 1824 and hence invalid.

### ***Echidna nocturna* (Cope 1872)**

*Poecilophis nocturnus* Cope 1872: 474 (Rio Grande at San Jose, Costa Rica). Holotype, ANSP 14926.

*Echidna scabra* Garman 1899: 314 (Cocos I., e Pacific). Holotype (unique), MCZ 28451.

*Echidna chionostigma* Fowler 1912: 28, fig. 7 (Probably from the Gulf of California, Mexico). Holotype, ANSP 14519.

*Muraena acutis* Seale 1917: 89 (San Miguel, Pearl Is., Gulf of Panama, e Pacific). Holotype (unique), MCZ 3960.

*Gymnothorax arae* Borodin 1928: 8 (Darwin Bay, Tower I. [Genovesa], Galápagos Is.). Holotype, AMNH 222126 [ex VMM 74].

*Rabula rotchii* Clark 1936: 384 (Tidepools, Black Beach Anchorage, Santa María I. [Charles I.], Galápagos Is.). Holotype (unique), CAS 4964.

VERTEBRAE: 6–8, 55–60, 118–124 (MVF 6, 58, 122).

DISTRIBUTION: Eastern Pacific.

REMARKS: The stated locality for the holotype is problematical. San Jose, Costa Rica is not near the coast, and the specimen could not have been taken there. The species inhabits the eastern tropical Pacific and may have come from elsewhere in Costa Rica.

### ***Echidna peli* (Kaup 1856)**

*Poecilophis peli* Kaup 1856a: 67 (Ghana). Holotype, RMNH.PISC.3786. [Blache 1967a: 696, first reviser]

*Poecilophis lecomtei* Kaup 1856a: 67 (Gabon). Syntypes, MNHN B-2364 (1), B-2502 (1), B-2503 (1).

VERTEBRAE: —, —, 118–123.

DISTRIBUTION: Eastern Atlantic.

REMARKS: *Poecilophis peli* and *P. lecomtei* were described on the same page in the same paper. Blache (1967a: 696) was the first reviser and chose *peli* as the valid name.

### ***Echidna polyzona* (Richardson 1845)**

*Muraena polyzona* Richardson 1845b: 112, pl. 55 (figs. 11–14) (No locality). Lectotype, BMNH 1977.4.22.3, designated by Böhlke & Randall 2000: 220.

*Muraena fascigula* Peters 1855: 459 (Mozambique, 15°S). Holotype (unique), ZMB 4004.

*Muraena dizona* Bleeker 1861: 260 (Kupang, Timor I., Indonesia). Holotype (unique), BMNH 1867.11.28.340.

*Poecilophis tritor* Vaillant & Sauvage 1875: 287 (Hawaiian Is., U.S.A). Syntypes, MNHN 8844 to 8849 (6).

*Poecilophis pikei* Bliss (ex Steindachner) 1883: 61 (Mauritius). Syntypes, MCZ 6149 (1), MCZ 6150 (1); USNM 153564 [ex MCZ 6149] (1).

*Echidna zonata* Fowler 1900: 495, pl. 18 (fig. 2) (Hawaiian Is., U.S.A). Holotype (unique), ANSP 16484.

*Echidna leihala* Jenkins 1903: 428, fig. 9 (Reef in front of Honolulu, Oahu I., Hawaiian Is., U.S.A). Holotype, USNM 50844.

*Echidna vincta* Jenkins 1903: 429, fig. 10 (Honolulu, Oahu I., Hawaiian Is., U.S.A). Holotype, USNM 50687.



*Echidna obscura* Jenkins 1903: 430, fig. 11 (Honolulu, Oahu I., Hawaiian Is., U.S.A). Holotype, USNM 50686.  
*Echidna zonophaea* Jordan & Evermann 1903: 167 (Honolulu, Oahu I., Hawaiian Is., U.S.A). Holotype, USNM 50621.

*Echidna psalion* Jenkins 1903: 431, fig. 12 (Honolulu, Oahu I., Hawaiian Is., U.S.A). Holotype (unique), USNM 50685.

*Echidna sauvagei* Fowler 1912: 30, fig. 8 (No locality [probably Hawaiian Is., U.S.A.]). Holotype, ANSP 38161 [not 38164].

VERTEBRAE: 5–7, 50–54, 119–126 (MVF 6, 52, 122).

DISTRIBUTION: Indo-West Pacific.

***Echidna rhodochilus* Bleeker 1863**

*Echidna rhodochilus* Bleeker 1863a: 247 (Rotti I., Indonesia). Holotype (unique), BMNH 1867.11.28.277.

VERTEBRAE: 11–16, 51–56, 120–126 (MVF 13, 53, 122).

DISTRIBUTION: Indonesia.

***Echidna unicolor* Schultz 1953**

*Echidna unicolor* Schultz in Schultz et al. 1953: 106, figs. 21d, 22 (Lagoon reef at Eniwetok I., Rongelap Atoll, Marshall Is., w Pacific). Holotype, USNM 141627.

VERTEBRAE: 5–7, 49–55, 117–127 (MVF 6, 52, 122).

DISTRIBUTION: Indo-West Pacific.

***Echidna xanthospilos* (Bleeker 1859)**

*Muraena xanthospilos* Bleeker 1859: 348 (Karangbollong, Java, Indonesia). Lectotype, RMNH 7210, designated by Chen & Böhlke 1996: 301.

*Poecilophis ornata* Kaup 1859: 28, pl. 5 (East Indies). Holotype (unique), ZMH 12469.

VERTEBRAE: 4–5, 54–56, 115–116 (MVF 5, 55, 115).

DISTRIBUTION: Indonesia and Papua New Guinea.

**Genus *Enchelycore* Kaup 1856**

*Enchelycore* Kaup 1856a: 60. Type species *Muraena nigricans* Bonnaterre 1788, by subsequent designation (Kaup 1856b: 72). Feminine.

*Eurymyctera* Kaup 1856a: 59. Type species *Eurymyctera crudelis* Kaup 1856, by monotypy. Feminine.

*Aemasia* Jordan & Snyder 1901: 883. Type species *Aemasia lichenosa* Jordan & Snyder 1901, by original designation (also monotypic). Feminine.

*Rhinechidna* Barbour 1908: 41. Type species *Rhinamuraena eritima* Jordan & Seale 1906, by monotypy. Feminine.

*Fimbrinares* Whitley 1948: 72. Type species *Fimbrinares mosaica* Whitley 1948, by original designation (also monotypic). Feminine.

***Enchelycore anatina* (Lowe 1838)**

*Muraena anatina* Lowe 1838: 192. (Off Madeira). Neotype, BMNH 1869.3.7.1, designated by Böhlke et al. 1989: 136.

*Muraena sanctaehelenae* Günther 1870: 115 (Saint Helena I., South Atlantic). Holotype (unique), BMNH 1868.3.11.3.

VERTEBRAE: 6–8, 52–59, 146–158.

DISTRIBUTION: Atlantic.

REMARKS: Most recent authors have considered *Muraena sanctaehelenae* a synonym of *M. anatina*. Ben-Tuvia and Golani (1984: 542) pointed out differences in proportions, body color, and vertebral counts and on this basis recognized it as distinct. Böhlke et al. (1989:137) considered those characters insufficiently diagnostic and returned it to synonymy. However, the vertebral count of the holotype and only known specimen (146) is well outside the range of other specimens (151–158), and the color pattern seems distinct (Böhlke et al. 1989: fig. 135). If

additional specimens confirm these distinctions, *Enchelycore sanctaehelenae* could be recognized as a valid species.

***Enchelycore bayeri* (Schultz 1953)**

*Gymnothorax bayeri* Schultz in Schultz et al. 1953: 124, figs. 23f, 26 (Lagoon coral head at Kieschiechi I., Rongelap Atoll, Marshall Is., w Pacific, 20 ft). Holotype, USNM 141608.

VERTEBRAE: 8–11, 49–53, 146–153 (MVF 10, 51, 149).

DISTRIBUTION: Indo-West Pacific.

***Enchelycore bikiniensis* (Schultz 1953)**

*Gymnothorax bikiniensis* Schultz in Schultz et al. 1953: 116, figs. 23e, 24 (Cherry I., Bikini Atoll, Marshall Is). Holotype, USNM 141575.

VERTEBRAE: 8–9, 58–61, 146–153 (MVF 8, 60, 150).

DISTRIBUTION: Western Pacific.

***Enchelycore carychroa* Böhlke & Böhlke 1976**

*Enchelycore carychroa* Böhlke & Böhlke 1976: 138, figs. 1–3 (West of Delaporte Point, Great Bahama Bank, New Providence I., Bahamas, 12 ft). Holotype, ANSP 100000.

VERTEBRAE: 7–11, 45–51, 128–140 (MVF 9, 48, 135).

DISTRIBUTION: Western and Central Atlantic (one questionable record from Fernando Po, w Africa).

***Enchelycore kamara* Böhlke & Böhlke 1980**

*Enchelycore kamara* Böhlke & Böhlke 1980a: 173, figs. 1–3 (Cook Is., Tongareva Atoll, on lagoon side of some small islets south of Molokai I., central Pacific, 3–5 ft). Holotype, USNM 221161.

VERTEBRAE: 14–16, 60–64, 138–143 (MVF 15, 63, 140).

DISTRIBUTION: Central Pacific.

***Enchelycore lichenosa* (Jordan & Snyder 1901)**

*Aemasia lichenosa* Jordan & Snyder 1901: 883, fig. 20 (Wakanoura, Japan). Holotype, SU 6480.

VERTEBRAE: 6–7, 55–57, 136–149 (MVF 6, 56, 144).

DISTRIBUTION: Western Pacific; Galápagos Islands.

REMARKS: The holotype and paratype from Japan have 148–149 vertebrae (Böhlke 1982: 42); the specimens reported from the Galápagos by McCosker and Rosenblatt (1975: 422) have 136–142. This suggests that the two populations may not be conspecific.

***Enchelycore nigricans* (Bonnaterre 1788)**

*Muraena nigricans* Bonnaterre 1788: 34 (South America). No types known.

*Muraena anguina* Gronow in Gray 1854: 18 (Central America). No types known.

*Enchelycore euryrhina* Kaup 1856a: 60 (Locality unknown). Holotype, MNHN B-2362.

*Gymnothorax nigrocastaneus* Cope 1871: 483 (St. Martin I., West Indies). Holotype (unique), ANSP 16032.

*Gymnothorax umbrosus* Poey 1875: 67, pl. 9 (figs. 1–2) (Cuba). Holotype, USNM 13062.

*Gymnothorax brunneus* Nichols 1920: 59 (Castle Harbor, Bermuda). Holotype (unique), AMNH 7309.

VERTEBRAE: 6–10, 58–63, 141–148 (MVF 8, 60, 144).

DISTRIBUTION: Western, Central, and Eastern Atlantic.

***Enchelycore nycturanus* Smith 2002**

*Enchelycore nycturanus* Smith 2002: 2, figs. 1–3 (Off Scottsburgh, Hospital Reef, Aliwal Shoal, Kwazulu-Natal, South Africa). Holotype, SAIAB 46473.

VERTEBRAE: 5–6, 53–56, 147–148 (MVF 5, 55, 147).

DISTRIBUTION: Aliwal Shoal, South Africa.

***Enchelycore octaviana* (Myers & Wade 1941)**

*Gymnothorax octavianus* Myers & Wade 1941: 89, pl. 16 (Octavia Bay, Colombia [Pacific]). Holotype, USNM 101801.

VERTEBRAE: 9–10, 57–58, 142–145 (MVF 9, 58, 144).



DISTRIBUTION: Eastern Pacific.

***Enchelycore pardalis* (Temminck & Schlegel 1846)**

*Muraena pardalis* Temminck & Schlegel 1846: 268, pl. 119 (Nagasaki, Japan). Lectotype, RMNH 3742, designated by Boeseman 1947: 191.

*Muraena lampra* Jenkins 1903: 423, fig. 3 (Honolulu, Oahu I., Hawaiian Is., U.S.A). Holotype (unique), USNM 50680.

*Muraena kauila* Jenkins 1903: 424, fig. 4 (Honolulu, Oahu I., Hawaiian Is., U.S.A). Holotype (unique), USNM 50684.

*Muraena kailuae* Jordan & Evermann 1903: 165 (Kailua, Hawaii I., Hawaiian Is., U.S.A). Holotype (unique), USNM 50614.

VERTEBRAE: 3–6, 44–51, 119–126 (MVF 4, 47, 123).

DISTRIBUTION: Indo-West Pacific.

***Enchelycore ramosa* (Griffin 1926)**

*Gymnothorax ramosus* Griffin 1926: 539, pl. 94 (Whangaroa and Bay of Islands, North Auckland districts, New Zealand). Holotype, AIM.

*Fimbrinares mosaica* Whitley 1948:72 (Point Banks, near Botany Bay, N. S. W., Australia, 5 ft). Holotype (unique), AMS IA.3926.

VERTEBRAE: 6, 54–58, 145–151.

DISTRIBUTION: South Pacific, Australia to Easter Island.

***Enchelycore schismatorhynchus* (Bleeker 1853)**

*Muraena schismatorhynchus* Bleeker 1853b: 301 (Benkulen [Bengkulu], Sumatra, Indonesia). Holotype (unique), BMNH 1867.11.28.248.

*Eurymyctera crudelis* Kaup 1856a: 59 (Java, Indonesia). Lectotype, RMNH 3776, designated by Böhlke & Smith 2002: 104.

*Muraena congeroides* Bleeker 1860: 87 (Benkulen, Sumatra, Indonesia). Holotype (unique), BMNH 1867.11.28.338.

*Muraena hemprichii* Klunzinger 1871: 613 (Al-Quseir [Kosseir], Egypt, Red Sea). Holotype (unique), ZMB 4048.

*Rhinamuraena eritima* Jordan & Seale 1906: 196, fig. 6 (Pago Pago, American Samoa). Holotype (unique), USNM 51717.

*Rhinechidna eritonia* Jordan, 1927: 4. Unavailable, apparently a lapsus for *Rhinomuraena eritima*

VERTEBRAE: 4–6, 60–65, 137–142 (MVF 4, 62, 140).

DISTRIBUTION: Indo-West Pacific.

**Genus *Enchelynassa* Kaup 1855**

*Enchelynassa* Kaup 1855: 213. Type species *Enchelynassa bleekeri* Kaup 1855, by monotypy. Feminine.

***Enchelynassa canina* (Quoy & Gaimard 1824)**

*Muraena canina* Quoy & Gaimard 1824: 247 (Waigeo [Waigiou], Indonesia; Rawak I., Bismarck Archipelago). Syntypes, MNHN (not found).

*Enchelynassa bleekeri* Kaup 1855: 214, pl. 10 (fig. 3) (Pacific Ocean). Holotype (unique), lost.

*Gymnothorax vinolentus* Jordan & Evermann 1903: 165 (Kailua, Hawaii I., Hawaiian Is., U.S.A). Holotype (unique), USNM 50615.

VERTEBRAE: 6–7, 62–64, 141–147 (MVF 6, 63, 142).

DISTRIBUTION: Indo-West Pacific.

REMARKS: The original description of *Muraena canina* is very general and does not include any identifying characters for the species. Jordan and Seale (1906: 197) listed it as valid, with *Enchelynassa bleekeri* and *E. vinolentus* as junior synonyms, but did not explain why they adopted the name for this very distinctive species. Weber and deBeaufort (1916: 391) accepted Jordan and Seale's conclusion "notwithstanding the description of

Quoy and Gaimard is insufficient." Later authors have simply followed historical convention, and the name is well established in current usage.

### Genus *Gymnomuraena* Lacepède 1803

*Gymnomuraena* Lacepède 1803: 648. Type species *Gymnomuraena doliata* Lacepède 1803, by subsequent designation (Jordan & Evermann 1896: 402). Feminine.

*Gymnopsis* Rafinesque 1815: 93. Type species *Gymnomuraena doliata* Lacepède 1803, by being a replacement name. Feminine.

*Arndha* Deraniyagala 1931: 132. Type species *Gymnothorax zebra* Shaw 1797, by original designation (also monotypic). Feminine.

#### *Gymnomuraena zebra* (Shaw 1797)

*Gymnothorax zebra* Shaw in Shaw & Nodder 1797: 4 unnum. pp., pl. 322 (Sumatra, Indonesia [erroneously given originally as American seas]). Holotype (unique), BMNH 1977.4.22.4.

*Gymnomuraena doliata* Lacepède 1803: 648, 649, pl. 19 (fig. 4) (New Britain, Bismarck Archipelago). Holotype (unique), MNHN B-2376.

*Muraena molendinaris* Bennett 1833: 32 (Mauritius). Holotype (unique), BMNH 1852.9.13.100.

*Gymnomuraena fasciata* Kaup 1856a: 68 (Muscat, Oman). Lectotype, MNHN 4425, designated by Böhlke & Randall 2000: 225.

VERTEBRAE: 13–18, 80–88, 129–137 (MVF 14, 84, 132).

DISTRIBUTION: Indo-West Pacific; Eastern Pacific.

### Genus *Gymnothorax* Bloch 1795

*Gymnothorax* Bloch 1795: 83. Type species *Gymnothorax reticularis* Bloch 1795, by ICZN by use of plenary powers (Opinion 93). Masculine.

*Thaerodontis* McClelland 1844: 154, 174, 187. Type species *Thaerodontis reticulata* McClelland 1844, by subsequent designation (Jordan & Evermann 1896: 392). Feminine.

*Siderea* Kaup 1856a: 58. Type species *Muraena siderea* Richardson 1848, by absolute tautonymy of an included synonym. Feminine.

*Thyrsoidea* Kaup 1856a: 60. Type species *Muraena thyrsoidea* Richardson 1844, by absolute tautonymy of an included synonym. Feminine.

*Polyuranodon* Kaup 1856a: 65. Type species *Polyuranodon kuhli* Kaup 1856, by monotypy. Masculine.

*Neomuraena* Girard 1858: 171. Type species *Neomuraena nigromarginata* Girard 1858, by monotypy. Feminine.

*Taeniophis* Kaup 1859: suppl. 1. Type species *Taeniophis westphali* Kaup 1859, by subsequent designation (Jordan & Davis 1891: 589). Masculine.

*Priodonophis* Kaup 1859: 22. Type species *Gymnothorax ocellatus* Agassiz 1831, by monotypy. Masculine.

*Pseudomuraena* Johnson 1862: 167. Type species *Pseudomuraena maderensis* Johnson 1862, by monotypy. Feminine.

*Rabula* Jordan & Davis 1891: 589, 590. Type species *Muraena aquaedulcis* Cope 1872, by original designation. Feminine.

*Lycodontis* Jordan & Evermann 1896: 392. Type species *Lycodontis literata* McClelland 1844, by original designation. Feminine.

*Ahynnodontophis* Fowler 1912: 25. Type species *Gymnothorax (Ahynnodontophis) stigmanotus* Fowler 1912, by original designation (also monotypic). Masculine.

*Verdithorax* Whitley 1931: 311. Type species *Muraena prasina* Richardson 1848, by original designation. Masculine.

*Notorabula* Whitley 1934: 154. Type species *Muraena callorhyncha* Günther 1870, by original designation (also monotypic). Feminine.

*Heteromyrus* Pietschmann 1935: 93. Type species *Heteromyrus atoll* Pietschmann 1935, by monotypy. Masculine.

*Serranguilla* Whitley & Phillipps 1939: 228. Type species *Gymnothorax prionodon* Ogilby 1895, by original designation (also monotypic). Feminine.

*Chasmenchelys* Fowler 1944: 270. Type species *Muraena panamensis* Steindachner 1876, by original designation (also monotypic). Feminine.

REMARKS: *Gymnothorax* as currently treated is almost certainly a polyphyletic assemblage of generalized moray eels that are left over after everything else has been separated out. Some of the synonyms have been recognized as genera from time to time, but until more thorough comparative studies have been made, such actions are premature.

### ***Gymnothorax afer* Bloch 1795**

*Gymnothorax afer* Bloch 1795: 85, pl. 417 (Guinea). Syntypes, ZMB 3991 (1), 7784 (1, stuffed), 7785 (1, stuffed).

*Muraena africana* Shaw 1803: 30 (Guinea). New name for *Gymnothorax afer*.

*Thyrsoidea maculipinnis* Kaup 1856b: 83 (Ghana). Holotype (unique), RMNH 3792.

*Muraena tristis* Kaup 1856b: 62 (Niger R). Holotype (unique), BMNH 1847.4.4.31.

*Thyrsoidea marginata* Kaup 1859: 24, suppl. 4, pl. 4 (fig. 1) (West Africa). Holotype (unique), ZMH 12505.

VERTEBRAE: —, —, 140–148.

DISTRIBUTION: Eastern Atlantic.

### ***Gymnothorax albimarginatus* (Temminck & Schlegel 1846)**

*Muraena albimarginata* Temminck & Schlegel 1846: 267, pl. 118 (Japan). Holotype (unique), RMNH D2236 (stuffed).

VERTEBRAE: 4–7, 91–94, 184–195 (MVF 5, 92, 189).

DISTRIBUTION: Western and central Pacific.

### ***Gymnothorax angusticauda* (Weber & de Beaufort 1916)**

*Muraena (Priodonophis) angusticauda* Weber & de Beaufort 1916: 389, fig. 388 (Near Supiori, Schouten Is., New Guinea). Holotype (unique), ZMA 102162.

VERTEBRAE: 4, 59–60, 143–148 (MVF 4, 59, 146).

DISTRIBUTION: Indo-West Pacific.

### ***Gymnothorax angusticeps* (Hildebrand & Barton 1949)**

*Priodonophis angusticeps* Hildebrand & Barton 1949: 5, fig. 2 (Talara, Peru). Holotype (unique), USNM 144254.

VERTEBRAE: 5–6, 73, 168–170 (MVF 6, 73, 169).

DISTRIBUTION: Eastern Pacific.

### ***Gymnothorax annasona* Whitley 1937**

*Gymnothorax flavimarginatus annasona* Whitley 1937: 220 (Middleton Reef, n of Lord Howe I., sw Pacific). Holotype (unique), AMS IA.6867.

VERTEBRAE: 4–6, 56–59, 141–144 (MVF 5, 58, 142).

DISTRIBUTION: Southwestern Pacific.

### ***Gymnothorax annulatus* Smith & Böhlke 1997**

*Gymnothorax annulatus* Smith & Böhlke 1997: 179, fig. 3 (Visayan Sea between n Negros and Masbate Is., sw Caduruan Point, 11°38'20"N, 123°58'38"E, Philippines, 0–80.5 m). Holotype, ANSP 141418.

VERTEBRAE: 6–8, 49–53, 124–127 (MVF 7, 51, 126).

DISTRIBUTION: Western Pacific.

***Gymnothorax atoll* (Pietschmann 1935)**

*Heteromyrus atoll* Pietschmann 1935: 93 (Pearl and Hermes Reef, South East I., Hawaiian Is., U.S.A). Holotype (unique), NMW 65106.

VERTEBRAE: 4–6, 51–55, 127–133 (MVF 5, 53, 131).

DISTRIBUTION: Hawaiian Islands.

***Gymnothorax australicola* Lavenberg 1992**

*Gymnothorax australicola* Lavenberg 1992: 59, figs. 1–2 (Anakena Cove, east side 100 m ne of sand beach, Easter I., 27°03.5'S, 109°19.5'W, 4.5 m). Holotype, LACM 6560-48.

VERTEBRAE: 3–6, 49–55, 138–148 (MVF 4, 51, 142).

DISTRIBUTION: Southern Pacific.

***Gymnothorax austrinus* Böhlke & McCosker 2001**

*Gymnothorax austrinus* Böhlke & McCosker 2001: 85, figs. 4–5, pl. 1 (Half Moon Bay, Port Philip Bay, Victoria, Australia, 37°58'S, 145°01'E). Holotype (unique), NMV A.17858.

VERTEBRAE: 6, 68, 151.

DISTRIBUTION: Australia.

***Gymnothorax bacalladoi* Böhlke & Brito 1987**

*Gymnothorax bacalladoi* Böhlke & Brito 1987: 459, figs. 1–3 (Barranco Hondo, Tenerife I., Canary Is., 604 m). Holotype, TFMC (ZM-2).

VERTEBRAE: 5–6, 54–56, 130–131 (MVF 5, 55, 130).

DISTRIBUTION: Eastern Atlantic.

***Gymnothorax baranesi* Smith, Brokovich & Einbinder 2008**

*Gymnothorax baranesi* Smith, Brokovich & Einbinder 2008: 63, figs. 1–4 (Off Eilat, Israel). Holotype, HUJ 18976.

VERTEBRAE: 6–7, 52–55, 137–142.

DISTRIBUTION: Red Sea.

***Gymnothorax bathyphilus* Randall & McCosker 1975**

*Gymnothorax bathyphilus* Randall & McCosker 1975: 20, figs. 11–13 (Off Mt. Tere Vaka, w coast of Easter I., 250 m). Holotype (unique), BPBM 6801.

VERTEBRAE: 4, 52–56, 145–147 (MVF 4, 54, 146).

DISTRIBUTION: Easter Island, Juan Fernandez, and possibly other subtropical South Pacific islands.

***Gymnothorax berndti* Snyder 1904**

*Gymnothorax berndti* Snyder 1904: 518, pl. 4 (fig. 8) (Honolulu market, Oahu I., Hawaiian Is., U.S.A). Holotype, USNM 50867.

VERTEBRAE: 4–6, 52–58, 136–139 (MVF 5, 54, 137).

DISTRIBUTION: Tropical and subtropical Indo-West Pacific.

***Gymnothorax breedeni* McCosker & Randall 1977**

*Gymnothorax breedeni* McCosker & Randall 1977: 162, figs. 1–3 (Itsandra, Grande Comore I., Comoro Is., Indian Ocean). Holotype, CAS 35250.

VERTEBRAE: 3–6, 52–55, 128–131 (MVF 4, 53, 129).

DISTRIBUTION: Indo-West Pacific.

***Gymnothorax buroensis* (Bleeker 1857)**

*Muraena buroensis* Bleeker 1857: 79 (Kajeli, Buru I., Molucca Is., Indonesia). Holotype (unique), RMNH 7197.

*Muraena corallina* Klunzinger 1871: 614 (Al-Quseir [Kosseir], Egypt, Red Sea). No types known.

*Gymnothorax tahitensis* Seale 1906: 7, fig. 1 (Tahiti, Society Is). Holotype (unique), BPBM 1367.

*Gymnothorax marquesensis* Seale 1906: 10, fig. 1 (Nuku Hiva, Marquesas Is). Holotype, BPBM 2384.

VERTEBRAE: 4–7, 44–48, 109–117 (MVF 5, 47, 113).

DISTRIBUTION: Indo-Pacific, common and widely distributed.

***Gymnothorax castaneus* (Jordan & Gilbert 1883)**

*Sidera castanea* Jordan & Gilbert 1883c: 647 (Mazatlán, Sinaloa, Mexico). Lectotype, USNM 29591, designated by Smith 1994: 24.

*Gymnothorax stigmanotus* Fowler 1912: 26, fig. 6 (Eastern Pacific [no specific locality]). Holotype (unique), ANSP 16705.

VERTEBRAE: 5–8, 58–60, 140–147 (MVF 6, 59, 143).

DISTRIBUTION: Eastern Pacific.

***Gymnothorax castlei* Böhlke & Randall 1999**

*Gymnothorax castlei* Böhlke & Randall 1999: 550, figs. 1–3 (North of Mauimere, Wailiti Reef, 8°34'40"S, 122°11'55"E, Flores, Indonesia, 18 m). Holotype, ANSP 177738.

VERTEBRAE: 3–6, 46–49, 118–124 (MVF 5, 48, 120).

DISTRIBUTION: Western Pacific.

***Gymnothorax cephalospilus* Böhlke & McCosker 2001**

*Gymnothorax cephalospilus* Böhlke & McCosker 2001: 86, figs. 6–7, pl. 1 (Off Port Macquarie, N.S.W., Australia, 31°16'S, 153°10'E, 134 m). Holotype, AMS I.37982-001.

VERTEBRAE: 5–7, 63–65, 142–146 (MVF 6, 64, 145).

DISTRIBUTION: Australia.

***Gymnothorax chilospilus* Bleeker 1864**

*Gymnothorax chilospilus* Bleeker 1864a: 52 (East Indian Archipelago). Lectotype, BMNH 1867.11.28.328, designated by Böhlke & Randall 2000: 232.

?*Gymnothorax detactus* Bryan & Herre 1903: 126 (Marcus I.). Holotype BPBM 2403.

*Gymnothorax samalensis* Seale 1910: 492 (Samal I., Davao Gulf, Mindanao I., Philippines). Holotype (unique), BSMP 3781 (apparently lost).

*Lycodontis perustus* Smith 1962: 437, pl. 59 (fig. E) (Pinda I., Mozambique). Holotype (unique), SAIAB 114.

VERTEBRAE: 4–7, 47–52, 120–129 (MVF 5, 49, 125).

DISTRIBUTION: Indo-West Pacific.

REMARKS: *Gymnothorax detactus* is possibly a synonym, but the biserial vomerine teeth are not typical.

***Gymnothorax chlamydatus* Snyder 1908**

*Gymnothorax chlamydatus* Snyder 1908: 94 (Naha market, Okinawa I., Ryukyu Is., Japan). Holotype, USNM 62232.

VERTEBRAE: 3–4, 60–62, 145–149 (MVF 4, 61, 148).

DISTRIBUTION: Western Pacific.

***Gymnothorax conspersus* Poey 1867**

*Gymnothorax conspersus* Poey 1867: 259 (Matanzas, Cuba). No types known.

VERTEBRAE: 5–8, 62–70, 163–174 (MVF 6, 66, 168).

DISTRIBUTION: Western Atlantic.

***Gymnothorax cribroris* Whitley 1932**

*Gymnothorax cribroris* Whitley 1932b: 330, pl. 39 (fig. 2) (Northwest Islet, Capricorn Group, Queensland, Australia). Holotype, AMS IA.5012.

VERTEBRAE: 3–6, 48–51, 116–125 (MVF 4, 50, 120).

DISTRIBUTION: Australia.

***Gymnothorax davidsmithi* McCosker & Randall 2008**

*Gymnothorax davidsmithi* McCosker & Randall 2008: 712, figs. 1–3 (Flores, Indonesia). Holotype, BPBM 34009.

VERTEBRAE: 4, 64, 156.

DISTRIBUTION: Indonesia.



***Gymnothorax dorsalis* Seale 1917**

*Gymnothorax dorsalis* Seale 1917: 92 (Hong Kong). Holotype, MCZ 31060.

VERTEBRAE: 8–9, 62–65, 154–163 (MVF 9, 63, 158).

DISTRIBUTION: Western Pacific.

***Gymnothorax dovii* (Günther 1870)**

*Muraena dovii* Günther 1870: 103 (Panama [Pacific]). Holotype (unique), BMNH 1861.8.13.2.

VERTEBRAE: 5–8, 57–63, 140–148 (MVF 6, 59, 143).

DISTRIBUTION: Eastern Pacific.

***Gymnothorax elegans* Bliss 1883**

*Muraena flavimarginata* Kaup in Duméril 1856b: 67 (Réunion I). Syntypes, MNHN A-8811 (1, dry), A-8812 (1, dry). Preoccupied by *Muraena flavimarginata* Rüppell 1830.

*Gymnothorax elegans* Bliss 1883: 60 (Mauritius). Holotype (unique), MCZ 5954.

*Gymnothorax albomaculatus* Bliss 1883: 57 (Mauritius). Holotype (unique), MCZ 5946.

*Gymnothorax goldsboroughi* Jordan & Evermann 1903: 167 (Honolulu, Oahu I., Hawaiian Is., U.S.A). Holotype (unique), USNM 50617.

*Gymnothorax elegans* Seale 1917: 91 (Mauritius). Holotype (unique), MCZ 5954.

VERTEBRAE: 2–5, 52–57, 138–150 (MVF 3, 54, 143).

DISTRIBUTION: Indo-West Pacific.

REMARKS: Seale (1917) was unaware of Bliss's (1883) paper and redescribed some of the same species, including *Gymnothorax elegans*.

***Gymnothorax emmae* Prokofiev, 2010**

*Gymnothorax emmae* Prokofiev, 2010: 583, figs. 1–2 (Vietnam). Holotype ZIN 54263.

VERTEBRAE: 2–3, 46–49, 121–129 (MVF 2, 47, 125).

DISTRIBUTION: Vietnam.

***Gymnothorax enigmaticus* McCosker & Randall 1982**

*Gymnothorax enigmaticus* McCosker & Randall 1982: 18, figs. 1, 4 (Off Ngatchab Beach, Angaur I., Palau Is., Caroline Is., w Pacific). Holotype, CAS 48815.

VERTEBRAE: 4, 50–51, 128–131 (MVF 4, 51, 130).

DISTRIBUTION: Indo-West Pacific.

***Gymnothorax equatorialis* (Hildebrand 1946)**

*Priodonophis equatorialis* Hildebrand 1946: 134, fig. 31 (Gulf of Guayaquil, off Mt. Organos, near Cabo Blanco, Peru, 4°13'S, 80°13'W, 12 fm). Holotype, USNM 127842.

VERTEBRAE: MVF 7, 53, 146).

DISTRIBUTION: Eastern Pacific.

***Gymnothorax eurostus* (Abbott 1860)**

*Thyrsoidea eurosta* Abbott 1860: 478 (Hawaiian Is., U.S.A). Holotype (unique), ANSP 984.

*Muraena laysana* Steindachner 1900: 177 (Laysan I., Leeward Is., Hawaiian Is., U.S.A). Lectotype, UMB 151 [RK UMB 4735], designated by Wahlert 1955: 323.

*Lycodontis parvibranchialis* Fowler 1900: 494, pl. 18 (fig. 1) (Hawaiian Is., U.S.A). Holotype (unique), ANSP 16483.

*Gymnothorax ercodes* Jenkins 1903: 428, fig. 8 (Honolulu, Oahu I., Hawaiian Is., U.S.A). Holotype (unique), USNM 50843.

*Gymnothorax chalazius* Waite 1904: 145, pl. 17 (fig. 2) (Lord Howe I). Syntypes, AMS I.5479 (1), I.6271 (1).

*Gymnothorax gilberti* Tanaka 1908: 25, pl. 1 (fig. 1) (Bonin [Ogasawara] Is., Japan). Holotype (unique), SMF 21030.

*Gymnothorax wakanourae* Tanaka 1908: 24, pl. 2 (fig. 4) (Wakanoura, Wakayama Pref., Japan). Holotype (unique), ZUMT 956 (lost).



*Gymnothorax dentex* de Buen 1961: 12, fig. 4 (Easter I., se Pacific). Holotype, EBMC 97.  
VERTEBRAE: 4–6, 45–50, 116–126 (MVF 5, 48, 120).  
DISTRIBUTION: Indo-West Pacific, antitropical.  
REMARKS: There may be more than one species currently passing under the name *Gymnothorax eurostus*. Further studies are needed.

***Gymnothorax eurygnathos* Böhlke 2001**

*Gymnothorax eurygnathos* Böhlke 2001: 2, figs. 1–2 (Gulf of California, 26°11.4–15.5'N, 109°50.7–39.5'W, 406–396 m). Holotype (unique), SIO 72-199.

VERTEBRAE: 10, 66, 134.

DISTRIBUTION: Eastern Pacific.

***Gymnothorax favagineus* Bloch & Schneider 1801**

*Gymnothorax favagineus* Bloch & Schneider 1801: 525, pl. 105 (Tranquebar, India). Holotype (unique), ZMB 7782 (stuffed).

*Thaerodontis reticulata* McClelland 1844: 188, 203, 216, pl. 7 (fig. 1) (Malay Coast). Holotype (unique), SMF (lost).

*Muraena tessellata* Richardson 1845b: 109, pl. 55 (figs. 5–8) (Southern seas?). Holotype (unique), BMNH (apparently lost).

*Muraena python* Kaup 1856b: 68, pl. 10 (fig. 52) (Africa). Holotype (unique), BMNH 2008.4.21.5.

*Lycodontis permistus* Smith 1962: 433, pl. 55 (figs. A–B) (Mahé, Seychelles). Holotype, SAIAB 94.

VERTEBRAE: 4–6, 58–61, 138–144 (MVF 5, 60, 141).

DISTRIBUTION: Indo-West Pacific.

***Gymnothorax fimbriatus* (Bennett 1832)**

*Muraena fimbriata* Bennett 1832: 168 (Mauritius). Holotype (unique), BMNH 1856.2.15.16.

*Muraena bullata* Richardson 1848: 86 (Borneo). Holotype (unique), BMNH 2008.4.9.4.

*Muraena isingleenoides* Bleeker 1853a: 48 (Sibogha, w Sumatra, Indonesia). Lectotype, RMNH 7191, designated by Böhlke & Smith 2002: 116.

*Enchelycore tamarae* Prokoviev 2005: 702, figs. 1, 2 (India). Holotype ZIN 53422.

VERTEBRAE: 4–5, 51–56, 131–142.

DISTRIBUTION: Indo-West Pacific.

REMARKS: *Enchelycore tamarae* appears to be a specimen of *G. fimbriatus*, judging from color pattern and dentition. The arched jaws are not definitive for the genus *Enchelycore* (see Smith et al. 2008).

***Gymnothorax flavimarginatus* (Rüppell 1830)**

*Muraena flavimarginata* Rüppell 1830: 119, pl. 30 (fig. 3) (Red Sea). Holotype (unique), SMF 765.

*Muraena mauritiana* Kaup 1856b: 65 (Mauritius). Lectotype, MNHN B-2468, Designated by Böhlke & Randall (2000: 236).

*Muraena batuensis* Bleeker 1856d: 241 (Batu Is., Indonesia). Holotype (unique), BMNH 1867.11.28.253.

*Gymnothorax viridipinnis* Bliss 1883: 58 (Mauritius). Holotype (unique), MCZ 6146.

*Gymnothorax thalassopterus* Jenkins 1903: 427, pl. 2 (Honolulu, Oahu I., Hawaiian Is., U.S.A). Holotype, USNM 50619.

*Muraena viridipinna* Seale 1917: 88 (Mauritius). Holotype (unique), MCZ 6146.

*Lycodontis lemayi* Smith 1949: 108 (Inhaca I., Mozambique). Holotype (unique), SAIAB (lost).

VERTEBRAE: 5–7, 54–61, 132–140 (MVF 5, 58, 136).

DISTRIBUTION: Indo-Pacific.

***Gymnothorax flavoculus* (Böhlke & Randall 1996)**

*Siderea flavocula* Böhlke & Randall 1996: 95, figs. 1–5 (e side of Masirah I., Oman, Arabian Sea, 6 m). Holotype, BPBM 36155.

VERTEBRAE: 3–4, 53–55, 124–127 (MVF 4, 54, 126).

DISTRIBUTION: Western Indian Ocean.

***Gymnothorax formosus* Bleeker 1864**

*Gymnothorax formosus* Bleeker 1864a: 51 (Wahai, Ceram, Indonesia). Holotype (unique), BMNH 1867.11.28.241. [Günther 1870: 111, first reviser]

*Gymnothorax rhodocephalus* Bleeker 1864a: 50 (Ambon I., Molucca Is., Indonesia). Holotype (unique), BMNH 1867.11.28.309.

VERTEBRAE: 3–5, 56–57, 131–136 (MVF 4, 56, 133).

DISTRIBUTION: Western and central Pacific.

***Gymnothorax funebris* Ranzani 1839**

*Gymnothorax funebris* Ranzani 1839: 77 [13], pl. 11[5] (figs. 2a–b) (Brazil).

*Muraena lineopinnis* Richardson 1848: 89 (Puerto Caballo, South America). Holotype (unique), BMNH 1847.5.14.43.

*Taeniophis westphali* Kaup 1859: suppl. p. 1 (Caribbean Sea). Holotype (unique), ZMH 12490.

*Thyrsoidea aterrima* Kaup 1859: 22, pl. 3 (fig. 1) (Puerto Cabello, Venezuela). Holotype, ZMH H389.

*Muraena infernalis* Poey 1861: 347, 354 (Cuba). Holotype (unique), USNM 4808.

VERTEBRAE: 4–7, 57–61, 137–142 (MVF 6, 60, 140).

DISTRIBUTION: Western Atlantic.

REMARKS: Although the journal containing Ranzani's description of *Gymnothorax funebris* was published in 1840, a separate appeared in 1839. The description appeared there on p. 13, pl. 5.

***Gymnothorax fuscomaculatus* (Schultz 1953)**

*Rabula fuscomaculata* Schultz in Schultz et al. 1953: 147, fig. 30 (Lagoon reef at Latoback, I., Rongerik Atoll, Marshall Is., w Pacific). Holotype, USNM 141639.

VERTEBRAE: 33–45, 45–51, 112–122 (MVF 37, 48, 117).

DISTRIBUTION: Indo-West Pacific.

***Gymnothorax gracilicauda* Jenkins 1903**

*Gymnothorax gracilicauda* Jenkins 1903: 426, fig. 6 (Reef in front of Honolulu, Oahu I., Hawaiian Is., U.S.A). Holotype (unique), USNM 50679.

VERTEBRAE: 4–6, 47–52, 127–135 (MVF 5, 51, 131).

DISTRIBUTION: Western and central Pacific.

***Gymnothorax griseus* (Lacepède 1803)**

*Muraenophis grisea* Lacepède (ex Commerson) 1803: 629, 642, pl. 19 (fig. 3) (Madagascar; New Caledonia). No types known.

*Muraena geometrica* Rüppell 1830: 118, pl. 30 (fig. 1) (Massawa, Eritrea, Red Sea). Holotype (unique), SMF 130.

*Muraena bilineata* Rüppell 1838: 84 (Jidda [Jeddah], Saudi Arabia, Red Sea). Holotype, SMF 911.

*Siderea schonlandi* Smith, 1949: 109 (Mozambique). Syntypes, SAIAB 106, others not located.

VERTEBRAE: 3–5, 49–53, 128–138 (MVF 4, 51, 134).

DISTRIBUTION: Western Indian Ocean.

REMARKS: In his description of *Siderea schonlandi*, Smith stated that the species was common at three locations in Mozambique and attained over 30 inches in size, clearly indicating that he had seen more than one individual. Only a single specimen from this time period and location can be found at the SAIAB museum, however, and it is possible that Smith only kept that one.

***Gymnothorax hansii* Heemstra 2004**

*Gymnothorax hansii* Heemstra 2004: 2, figs. 1–3 (Comoro Is). Holotype, SAIAB 38673.

VERTEBRAE: —, 82–84, 183–185.

DISTRIBUTION: Comoro Is., western Indian Ocean.

***Gymnothorax hepaticus* (Rüppell 1830)**

*Muraena hepatica* Rüppell 1830: 120 (Red Sea). Holotype (unique), SMF 3554. [Randall and Golani, 1995: 858, first revisers]

*Muraena cinerascens* Rüppell 1830: 120 (Mohila, Red Sea). Holotype (unique), SMF 3486.

VERTEBRAE: 4–5, 57–58, 128–135 (MVF 5, 56, 131).

DISTRIBUTION: Apparently restricted to western Indian Ocean; records from Pacific probably refer to *Gymnothorax monochrous*.

REMARKS: *Muraena hepatica* and *Muraena cinerascens* were described in the same paper on the same page. Although *hepatica* has been widely used, *cinerascens* has seldom if ever been cited since as a valid species. Randall and Golani (1995) were apparently the first to list both names and choose one of them (*hepaticus*), hence becoming the first revisers.

***Gymnothorax herrei* Beebe & Tee-Van 1933**

*Gymnothorax brunneus* Herre 1923: 212 (Analao, Batangas, Philippines, 13°45'N, 120°55'E, 0–3 m). Neotype, ANSP 164931, designated by Böhlke 2000: 404. Preoccupied by *Gymnothorax brunneus* Nichols 1920.

*Gymnothorax herrei* Beebe & Tee-Van 1933: 138 (Analao, Batangas, Philippines, 13°45'N, 120°55'E, 0–3 m). Neotype, ANSP 164931, designated by Böhlke 2000: 404.

VERTEBRAE: 7–11, 45–50, 108–122 (MVF 9, 47, 114).

DISTRIBUTION: Indo-West Pacific.

***Gymnothorax hubbsi* Böhlke & Böhlke 1977**

*Gymnothorax hubbsi* Böhlke & Böhlke 1977: 238, figs. 1–3 (Off Cape Canaveral, Florida, U.S.A., 28°33'N, 80°03'W, 38 fm). Holotype, USNM 214833 [ex ANSP 115230].

VERTEBRAE: 6–8, 56–60, 133–137 (MVF 7, 58, 135).

DISTRIBUTION: Western Atlantic.

***Gymnothorax intesi* (Fourmanoir & Rivaton 1979)**

*Lycodontis intesi* Fourmanoir & Rivaton 1979: 426, fig. 16 (Lifou I., Loyalty Is., sw Pacific, 400 m). Holotype, MNHN 1980-0304.

VERTEBRAE: 4–6, 64–71, 149–163 (MVF 6, 68, 155).

DISTRIBUTION: Western Pacific.

***Gymnothorax isingteena* (Richardson 1845)**

*Muraena isingteena* Richardson 1845b: 108, pl. 48 (fig. 1) (China seas; Canton, China). Holotype, BMNH 2008.4.9.3 (lectotype designation by Böhlke & Smith 2002 invalid).

*Muraena melanospilos* Bleeker 1855a: 279 (Sibogha, w Sumatra, Indonesia). Holotype (unique), BMNH 1867.11.28.239.

*Gymnothorax pescadoris* Jordan & Evermann 1902: 326, fig. 8 (Kotosho, Hokoto or Pescadores Is., Taiwan). Holotype (unique), SU 12686 [ex SU 7131].

VERTEBRAE: 4–6, 61–62, 137–147 (MVF 5, 61, 144).

DISTRIBUTION: Western North Pacific.

REMARKS: Hatooka (2002: 1453) claimed that *Muraena melanospilos* is a synonym of *Gymnothorax javanicus*, though without giving any explanation. Böhlke and Smith (2002:126) described the holotype and placed the species in the synonymy of *isingteena*. The illustration of *melanospilos* given in Bleeker's Atlas (1864, pl. 186, fig. 3) looks much more like *isingteena* than *javanicus*, and I follow Böhlke and Smith here in treating it as a synonym of the former. See further comments under *Gymnothorax javanicus*.

***Gymnothorax javanicus* (Bleeker 1859)**

*Muraena javanica* Bleeker 1859: 347 (Patjitan, Java, Indonesia). Holotype (unique), BMNH 1867.11.28.214.

*Gymnothorax mindanoensis* Borodin 1930: 43, pl. 1 (fig. 1) (Mindanao I., Philippines). Holotype (unique), VMM 655 [not 665] (now AMNH 222125).

VERTEBRAE: 5–7, 57–61, 137–143 (MVF 6, 60, 141).

DISTRIBUTION: Indo-West Pacific.

REMARKS: As pointed out above, Hatooka (2002:1453) treated *Muraena melanospilos* Bleeker 1855 as the senior synonym of *javanicus*. It has already been explained why the former is considered a synonym of *Gymnothorax*

*isingteena* and not of *javanicus*. Even if Hatooka were correct, however, Article 23.9.1 of the ICZN could be invoked to suppress such a synonymy. The name *melanospilos* may have appeared in print occasionally over the years, but never as a synonym of *Gymnothorax javanicus*. The name *Gymnothorax javanicus* has been used universally since its description for the well known giant moray of the Indo-Pacific, easily fulfilling the requirements of Article 23.9.1.2 (“used...in at least 25 works, published by at least 10 authors in the immediately preceding 50 years and encompassing a span of not less than 10 years.”). The same reasoning applies to *Muraena pratbernon* Richardson 1848. Although the description sounds very much like *G. javanicus*, the name has not been used since 1899 (and earlier) and must be treated as a nomen oblitum.

***Gymnothorax johnsoni* (Smith 1962)**

*Lycodontis johnsoni* Smith 1962: 438, pl. 56 (figs. C–D) (Algoa Bay, South Africa, 40 fm). Holotype, SAIAB 104. VERTEBRAE: 4–6, 53–57, 139–142 (MVF 5, 55, 139).

DISTRIBUTION: Western Indian Ocean.

***Gymnothorax kidako* (Temminck & Schlegel 1846)**

*Muraena kidako* Temminck & Schlegel 1846: 266, pl. 117 (Nagasaki, Japan). Lectotype, RMNH 3957 designated by Boeseman 1947, 190.

*Muraena similis* Richardson 1848: 83 (Polynesia; Red Sea; Japan). Syntypes, BMNH 1846.2.16.100 (1, stuffed) Japan [the described syntype]; other syntypes not extant.

*Gymnothorax mucifer* Snyder 1904: 519, pl. 5 (fig. 9) (Honolulu market, Oahu I., Hawaiian Is., U.S.A). Holotype (unique), USNM 50868.

VERTEBRAE: 4–7, 52–58, 136–149 (MVF 5, 55, 141).

DISTRIBUTION: Western and central Pacific.

REMARKS: Richardson (1848) described *Muraena similis* from a single specimen from Japan, which Böhlke & Randall (2000) and Böhlke & Smith (2002) treated as the holotype. However, he noted the distribution as including Polynesia and the Red Sea, based on specimens described by Forster (Tahiti) and Rüppell (Red Sea, as *Muraena ophis*), thus implying the existence of syntypes. Forster’s specimen may well be *kidako*, as that species has been recorded from the Society Islands by Böhlke & Randall (2000: 242). The Forster specimen (which apparently no longer exists) might thus be considered a syntype of *similis*. Rüppell’s *Muraena ophis*, however, is a synonym of *Echidna nebulosa*, a fact that was recognized by Richardson (1848: 83) when he said that “the shortness of the gape distinguishes *ophis* from the present species.” Thus, he seemed to be excluding *M. ophis* Rüppell from his species *similis*, hence Rüppell’s specimen cannot be a syntype of *similis*.

***Gymnothorax kolpos* Böhlke & Böhlke 1980**

*Gymnothorax kolpos* Böhlke & Böhlke 1980b: 223, fig. 3 (Alabama, U.S.A., 29°19'N, 88°04'W, Oregon sta. 3201, 120 m). Holotype, ANSP 107093.

VERTEBRAE: 5–7, 60–65, 160–167 (MVF 6, 63, 164).

DISTRIBUTION: Western Atlantic.

***Gymnothorax kontodontos* Böhlke 2000**

*Gymnothorax kontodontos* Böhlke 2000: 411, figs. 2G, 3E, 8 (Outside reef 300 yards nw of entrance to English Harbor, Fanning I., Line Is., 6 m). Holotype, ANSP 177771.

VERTEBRAE: 7–9, 40–43, 126–135 (MVF 8, 42, 131).

DISTRIBUTION: Western Pacific.

***Gymnothorax longinquus* (Whitley 1948)**

*Lycodontis longinquus* Whitley 1948: 73 (North of Mackay, Queensland, Australia). Holotype (unique), AMS IA.6953.

VERTEBRAE: 5–6, 59–61, 129–137 (MVF 5, 60, 133).

DISTRIBUTION: Southwestern Pacific.

***Gymnothorax maderensis* (Johnson 1862)**

*Pseudomuraena maderensis* Johnson 1862: 167 (Madeira). Syntypes, BMNH 1862.6.14.10 (1).

- Ahynnodontophis rosaliae* Howell Rivero 1932: 19 (Deep water off Cojimar, near Havana, Cuba). Holotype (unique), MCZ 32785.  
 VERTEBRAE: 5–7, 66–70, 149–158 (MVF 6, 68, 153).  
 DISTRIBUTION: Eastern and Western Atlantic.
- Gymnothorax mareei* Poll 1953**  
*Gymnothorax mareei* Poll 1953: 118, fig. 46 (Atlantic, 8 mi. w of Rio Cuanza, Angola, 9°20'S, 13°04'E). Holotype, IRSNB 169.  
 VERTEBRAE: —, —, 130–138.  
 DISTRIBUTION: Eastern Atlantic.
- Gymnothorax margaritophorus* Bleeker 1864**  
*Gymnothorax margaritophorus* Bleeker 1864a: 53 (Ambon I., Molucca Is., Indonesia). Holotype (unique), BMNH 1867.11.28.268.  
*Gymnothorax talofa* Jordan & Starks in Jordan & Seale 1906: 201, fig. 7 (Apia, Upolu I., Western Samoa). Holotype, USNM 51713.  
 VERTEBRAE: 5–6, 48–52, 123–133 (MVF 6, 50, 129).  
 DISTRIBUTION: Indo-West Pacific.
- Gymnothorax marshallensis* (Schultz 1953)**  
*Rabula marshallensis* Schultz in Schultz et al. 1953: 149, fig. 31 (Lagoon reef at Ennylabegan I., Kwajalein Atoll, Marshall Is., w Pacific). Holotype, USNM 141687.  
 VERTEBRAE: 34–35, 51–53, 129–133 (MVF 34, 52, 132)  
 DISTRIBUTION: Western Pacific.
- Gymnothorax mccoskeri* Smith & Böhlke 1997**  
*Gymnothorax mccoskeri* Smith & Böhlke 1997: 181, fig. 5 (nw of Roebuck Bay, Western Australia, 17°47'S, 121°46'E, 52–56 m). Holotype, CSIRO CA1489.  
 VERTEBRAE: 6–8, 49–53, 125–130 (MVF 6, 51, 127).  
 DISTRIBUTION: Australia.
- Gymnothorax megaspilus* Böhlke & Randall 1995**  
*Gymnothorax megaspilus* Böhlke & Randall 1995: 2, fig. 1 (Off sw side of Sawda I., Al Hallaniyaat [Kuria Muria Is.], s Oman, Arabian Sea, 21 m). Holotype, BPBM 36042.  
 VERTEBRAE: 4–5, 48–51, 123–129 (MVF 4, 50, 127).  
 DISTRIBUTION: Western Indian Ocean.
- Gymnothorax melanosomatus* Loh, Shao & Chen 2011**  
*Gymnothorax melanosomatus* Loh, Shao & Chen 2011: 44, figs. 1, 2 (Off Changbin, Taitung, Taiwan, 50–100 m). Holotype TOU-AE 1991.  
 VERTEBRAE: MVF 6, 108, 207.  
 DISTRIBUTION: Taiwan.
- Gymnothorax melatremus* Schultz 1953**  
*Gymnothorax melatremus* Schultz in Schultz et al. 1953: 120, figs. 23d, 25 (Ocean reef at Boby I., Bikini Atoll, Marshall Is., w Pacific). Holotype (unique), USNM 141610.  
 VERTEBRAE: 2–4, 48–53, 132–149 (MVF 4, 53, 139).  
 DISTRIBUTION: Indo-West Pacific.
- Gymnothorax meleagris* (Shaw 1795)**  
*Muraena meleagris* Shaw in Shaw & Nodder 1795: pl. 220 ("Southern Ocean."). Holotype (unique), BMNH 1977.4.22.2.  
*Thyrsoidea chlorostigma* Kaup 1856a: 63 (Seychelles). Holotype (unique), MNHN 0000-4427.  
*Gymnothorax leucostictus* Jenkins 1903: 425–426, fig. 5 (Honolulu, Oahu I., Hawaiian Is., U.S.A). Holotype, USNM 50681.



VERTEBRAE: 4–6, 48–53, 127–132 (MVF 5, 52, 130).

DISTRIBUTION: Indo-West Pacific.

REMARKS: Hatooka (2002: 1453) claimed that the holotype of *Muraena meleagris* actually belongs to the species currently recognized as *Gymnothorax eurostus*; the species currently treated as *Gymnothorax meleagris* would then take the next available name, *Gymnothorax chlorostigma*. His analysis was based on the slightly curved jaws and the mouth cavity of the same color as the body (jaws straight and mouth white in the currently recognized *meleagris*). I have examined the holotype of *meleagris* and find the situation ambiguous. The specimen is partially faded, with broad patches retaining the original pattern of small pale spots on a brown background, and a somewhat greater area without any pattern. The jaws are slightly arched, and the interior of the mouth is brownish, although the teeth are also dark; these are characters of “*eurostus*.” On the other hand, the overlying dark spots on the body characteristic of “*eurostus*” are not visible, and the pale spots seem to be ocellated (surrounded by dark margins) as in “*meleagris*” rather than plain as in “*eurostus*.” The specimen has a regenerated tail, so the vertebral count is not available. Tissue samples were taken in an attempt to test genetically, but they have not yielded usable DNA. Considering the ambiguous nature of the case, I hesitate to make such a confusing change in the application of two widely used names. For the time being, I am retaining current usage.

***Gymnothorax microstictus* Böhlke 2000**

*Gymnothorax microstictus* Böhlke 2000: 413, figs. 2H, 3F, 9 (North side of w entrance, Hermit I., Papua New Guinea). Holotype, USNM 357424.

VERTEBRAE: 4–5, 40–44, 113–121 (MVF 4, 41, 117).

DISTRIBUTION: Papua New Guinea.

***Gymnothorax miliaris* (Kaup 1856)**

*Thyrsoidea miliaris* Kaup 1856a: 63 (Martinique I., West Indies). Holotype (unique), MNHN B-2456. [Böhlke et al. 1989: 155 first revisers]

*Thyrsoidea irregularis* Kaup 1856a: 65 (Bahia, Brazil). Holotype, MNHN B-3120 [not B-2758].

*Thyrsoidea flavopicta* Kaup 1856a: 64 (Brazil). Holotype (unique), MNHN (not found).

*Muraena multiocellata* Poey 1860: 324 (Cuba). Holotype, unknown; apparently not USNM 24961.

*Muraena elaborata* Poey 1860: 323 (Cuba). Holotype, probably not USNM 24961.

*Gymnothorax scriptus* Poey 1867: 261 (Cuba). Holotype, whereabouts unknown.

*Leptocephalus fuliginosus* Strömman 1896: 34, pl. 3 (figs. 6–7) (Central Atlantic, 24°N, 68°W). Holotype (unique), ZMUU.

*Muraena grandimaculis* Regan 1903: 418, pl. 14 (fig. 3) (Bahia, Rio de Janeiro, Brazil). Holotype (unique), MHNG 665.39.

*Muraena myrialeucostictus* Fowler 1912: 18, fig. 4 (St. Martin I., West Indies). Holotype (unique), ANSP 16031.

*Muraena trinitatis* Miranda-Ribeiro 1919: 175, Unnum. pl. (fig. 3) (Trindade I., Martin Vaz Is., off se Brazil, South Atlantic, 20°31'S, 29°19'W). Lectotype, MNRJ 1922A, designated by Miranda Ribeiro 1953: 402.

*Muraena aurea* Mowbray 1931: unnumb. p. 2 (s shore of Bermuda). Holotype (unique), whereabouts unknown.

VERTEBRAE: 3–7, 47–51, 117–126 (MVF 5, 49, 120).

DISTRIBUTION: Western Atlantic and islands of central and eastern Atlantic.

REMARKS: Böhlke (1982: 40) treated USNM 24961 as the holotype of *Muraena elaborata*. Smith (1994: 32) explained in detail why this specimen is probably not a type of either *elaborata* or *multiocellata*. Kaup (1856a) described three species that are now considered synonyms: *Thyrsoidea miliaris*, *T. irregularis*, and *T. flavopicta*. The name *miliaris* has been widely used since, but Böhlke et al. (1989: 155) were apparently the first to list all three names and choose *miliaris* as the valid one.

***Gymnothorax minor* (Temminck & Schlegel 1846)**

*Muraena minor* Temminck & Schlegel 1846: 269, pl. 115 (fig. 2) (Japan). Lectotype, RMNH 3771a, designated by Boeseman 1947: 191.

VERTEBRAE: 5–8, 51–57, 129–143 (MVF 6, 55, 139).

DISTRIBUTION: Northwestern and Southwestern Pacific.



REMARKS: This species has an antitropical distribution in the western Pacific. The northern and southern forms differ in their vertebral count, 135–143 and 129–135 respectively (Smith and Böhlke 1997: 183). If the southern form were recognized as a species, no name would be available for it.

***Gymnothorax moluccensis* (Bleeker 1864)**

*Priodonophis moluccensis* Bleeker 1864a: 48 (Ambon I., Molucca Is., Indonesia). Holotype (unique), BMNH 1867.11.28.227.

VERTEBRAE: 6–7, 60–63, 131–138. (MVF 6, 61, 134).

DISTRIBUTION: Indo-West Pacific.

***Gymnothorax monochrous* (Bleeker 1856)**

*Muraena monochrous* Bleeker 1856a: 384 (Ternate, Molucca Is., Indonesia). Holotype (unique), BMNH 1867.11.28.244.

VERTEBRAE: 4–6, 56–61, 136–143 (MVF 4, 58, 139).

DISTRIBUTION: Indo-West Pacific.

***Gymnothorax monostigma* (Regan 1909)**

*Muraena monostigma* Regan 1909: 438 (Raiatea, Society Is). Lectotype, BMNH 1874.11.19.19, designated by Böhlke & Smith 2002: 129.

VERTEBRAE: 7–10, 49–62, 129–133 (MVF 8, 61, 132).

DISTRIBUTION: Indo-West Pacific.

***Gymnothorax mordax* (Ayres 1859)**

*Muraena mordax* Ayres 1859: 30 (Cedros I., Baja California, Mexico). No types.

*Rabula davis* Fowler 1912: 21, footnote (San Diego, California, U.S.A. [perhaps from farther south]). Holotype (unique), USNM 6673.

VERTEBRAE: 4–5, 61–67, 143–152 (MVF 5, 65, 148).

DISTRIBUTION: Eastern Pacific from s California to Baja California and Galápagos Islands.

***Gymnothorax moringa* (Cuvier 1829)**

*Muraena moringa* Cuvier 1829: 352 (Antilles). No types known.

*Gymnothorax rostratus* Agassiz in Spix & Agassiz 1831: 91, pl. 50a (Major river mouths of Brazil). No types known.

*Muraena punctata* Gronow in Gray 1854: 18 (Rivers of tropical North America). No types known.

*Murenophis curvilineata* Castelnau 1855: 81, pl. 42 (fig. 2) (Bahia, Brazil). Holotype, MNHN B-2436.

*Murenophis caramuru* Castelnau 1855: 82, pl. 43 (fig. 1) (Bahia, Brazil). Syntypes, MNHN B-2437 (1), B-3168 (2).

*Thyrsoidea concolor* Abbott 1860: 479 (Veracruz, Mexico). Holotype (unique), ANSP 970.

*Gymnothorax flavoscriptus* Poey 1876: 200 [158], pl. 9 [6] (fig. 2) (Cuba). No types known.

*Gymnothorax picturatus* Poey 1880: 257, pl. 10 (figs. 1–3) (Cuba). No types known.

*Lycodontis albimentis* Evermann & Marsh 1900: 78, fig. 9 (Off Culebra I., Puerto Rico, Fish Hawk sta. 6093, 15 fm). Holotype (unique), USNM 49527.

*Leptocephalus strommani* Eigenmann & Kennedy 1902: 89, figs. 8, 8a–b (20 mi. se of Cape Hatteras, North Carolina, U.S.A., 35°08'30"N, 75°10'00"W, Albatross sta. 2596, 0–49 fm). Holotype (unique), USNM 49762.

VERTEBRAE: 4–7, 50–57, 134–142 (MVF 6, 54, 138).

DISTRIBUTION: Western Atlantic.

***Gymnothorax nasuta* de Buen 1961**

*Gymnothorax nasuta* de Buen 1961: 10, fig. 3 (Easter I., se Pacific). Holotype, EBMC 118.

VERTEBRAE: MVF 4, 50, 138.

DISTRIBUTION: Easter Island and Chile.

***Gymnothorax neglectus* Tanaka 1911**

*Gymnothorax neglectus* Tanaka 1911: 28, pl. 7 (fig. 24) (Keelung, Taihoku, Taiwan). Holotype (unique), ZUMT 2165.

VERTEBRAE: 6, 58, 141 (holotype).

DISTRIBUTION: Western North Pacific.

***Gymnothorax nigromarginatus* (Girard 1858)**

*Neomuraena nigromarginata* Girard 1858: 171 (St. Joseph I., Texas, U.S.A). Holotype (unique), USNM 860 [= USNM 7004].

VERTEBRAE: 5–8, 45–52, 137–147 (MVF 6, 49, 142).

DISTRIBUTION: Western Atlantic.

***Gymnothorax niphostigmus* Chen, Shao & Chen 1996**

*Gymnothorax niphostigmus* Chen, Shao & Chen 1996: 20, figs. 1–3 (Poppingto fish market, 25°11'N, 121°51'E, Keelung, Taiwan, 100–150 m). Holotype, ASIZP 056940.

VERTEBRAE: 4–5, 53–55, 140–142 (MVF 4, 54, 141).

DISTRIBUTION: Western North Pacific.

REMARKS: Böhlke and Smith (2002: 131) considered this species a possible synonym of *Gymnothorax kidako* Temminck & Schlegel 1846. I tentatively recognize it here on the basis of the color pattern (distinctly pale spots on a dark brown background, and spots on the tail fewer and farther apart). The various pale-spotted *Gymnothorax* species are confusing, and further study is needed to confirm their identities.

***Gymnothorax nubilus* (Richardson 1848)**

*Muraena nubila* Richardson 1848: 81, pl. 46 (figs. 6–10) (Norfolk I., sw Pacific). Holotype (unique), BMNH 1972.1.26.159.

*Muraena euptera* Günther 1870: 122 (Raoul I., Kermadec Is, sw Pacific). Holotype (unique), BMNH 1855.8.16.50.

VERTEBRAE: 3–4, 50–54, 130–134 (MVF 4, 52, 132).

DISTRIBUTION: Southwestern Pacific.

***Gymnothorax nudivomer* (Günther 1867)**

*Muraena nudivomer* Günther in Playfair & Günther 1867: 127, pl. 18 (Zanzibar). Lectotype, BMNH 1867.3.9.48, designated by Günther 1870: 104.

*Gymnothorax xanthostomus* Snyder 1904: 519, pl. 5 (fig. 10) (Honolulu market, Oahu I., Hawaiian Is., U.S.A.). Holotype, USNM 50869.

*Gymnothorax insignis* Seale 1917: 93 (Mauritius). Holotype (unique), MCZ 5912.

VERTEBRAE: 2–4, 50–55, 132–139 (MVF 3, 52, 135).

DISTRIBUTION: Indo-West Pacific.

***Gymnothorax nuttingi* Snyder 1904**

*Gymnothorax nuttingi* Snyder 1904: 518, pl. 4 (fig. 7) (Honolulu market, Oahu I., Hawaiian Is., U.S.A). Holotype (unique), USNM 50866.

VERTEBRAE: 5–7, 70–74, 157–165 (MVF 6, 71, 160).

DISTRIBUTION: Hawaiian Islands.

***Gymnothorax obesus* (Whitley 1932)**

*Uropterygius obesus* Whitley 1932b: 329, pl. 39 (fig. 1) (Montague I., N. S. W., Australia, ca 70 fm). Holotype, AMS IA.3888.

*Muraena tuhua* Griffin 1933: 171, pl. 24 (bottom); fig. (15 mi. se of Mayor I. [Tuhua], New Zealand, 80 fm). Holotype (unique), AIM (lost).

VERTEBRAE: 9–10, 68–72, 166–172 (MVF 10, 70, 169).

DISTRIBUTION: Southwestern Pacific.

***Gymnothorax ocellatus* Agassiz 1831**

*Gymnothorax ocellatus* Agassiz in Spix & Agassiz 1831: 91, pl. 50b. (Major river mouths of equatorial Brazil). Syntypes, MHNN 1193 (1).

*Murenophis variegata* Castelnau 1855: 83, pl. 43 (fig. 2) (Rio de Janeiro, Brazil). Holotype (unique), MNHN B-2440. Secondarily preoccupied by *Muraena variegata* Rafinesque 1810.

*Gymnothorax ocellatus* var. *januarius* Jordan & Davis 1891: 607. Replacement name for *Murenophis variegata* Castelnau, considered preoccupied.

*Lycodontis jordani* Evermann & Marsh 1899: 352 (Mayagüez, Puerto Rico). Holotype (unique), USNM 49358. VERTEBRAE: 4–8, 46–54, 136–151 (MVF 6, 50, 145).

DISTRIBUTION: Western Atlantic.

***Gymnothorax panamensis* (Steindachner 1876)**

*Muraena panamensis* Steindachner 1876: 67 [19] (Panama [Pacific]). Holotype (unique), NMW (not found).

*Lycodontis umbra* Fowler 1944: 317, figs. 66–68 (James Bay, James I., Galápagos Is). Holotype (unique), ANSP 70025 (poor condition).

VERTEBRAE: 8–12, 50–55, 122–137 (MVF 10, 52, 130).

DISTRIBUTION: Eastern Pacific.

***Gymnothorax parini* Collette, Smith & Böhlke 1991**

*Gymnothorax parini* Collette, Smith & Böhlke 1991: 344, figs. 1–3 (Walters Shoals, sw Indian Ocean, 33°11'54"S, 43°51'42"E, Vityaz sta. 2751, 18 m). Holotype, USNM 307751.

VERTEBRAE: 3–5, 53–58, 143–152 (MVF 4, 56, 147).

DISTRIBUTION: Southwestern Indian Ocean.

***Gymnothorax phalarus* Bussing 1998**

*Gymnothorax phalarus* Bussing 1998: 439, figs. 1–4 (West side of Isla del Caño off Osa Peninsula, Costa Rica, 8°47'00"N, 84°03'48"W, 136–237 m). Holotype, LACM 47317-1.

VERTEBRAE: 5–8, 56–61, 138–142 (MVF 6, 58, 140).

DISTRIBUTION: Eastern Pacific.

***Gymnothorax phasmatodes* (Smith 1962)**

*Lycodontis phasmatodes* Smith 1962: 436, pl. 53 (figs B, C & I) (Inhaca I., Mozambique). Holotype, SAIAB 108.

VERTEBRAE: 5–7, 74–80, 160–174 (MVF 6, 78, 168).

DISTRIBUTION: Western Indian Ocean.

***Gymnothorax philippinus* Jordan & Seale 1907**

*Gymnothorax philippinus* Jordan & Seale 1907: 7, fig. 2 (Cavite, Luzon I., Philippines). Holotype (unique), SU 9215.

*Gymnothorax odiosus* Snyder 1908: 94 (Kagoshima, Japan). Holotype (unique), USNM 62231.

VERTEBRAE: MVF 4, 56, 130.

DISTRIBUTION: Western Pacific.

***Gymnothorax pictus* (Ahl 1789)**

*Muraena picta* Ahl 1789: 8, pl. 2 (right fig.) (East Indies). No types known.

*Muraenophis pantherina* Lacepède 1803: 628, 641, 642 (No locality). Holotype (unique), MNHN B-3141.

*Muraena variegata* Quoy & Gaimard 1824: 246, pl. 52 (fig. 1) (Guam, Mariana Is., w Pacific). Holotype, MNHN B-3142. Preoccupied by *Muraena variegata* Rafinesque, 1810.

*Muraena lita* Richardson 1848: 84 (Molucca Is., Indonesia). Holotype (unique), BMNH 1846.2.16.111.

*Muraena erythroptera* Solander in Richardson 1848: 86 (Society Is.). No types known.

*Muraena atomaria* Solander in Richardson 1848: 86 (Society Is.). No types known.

*Muraena siderea* Richardson 1848: 85, pl. 48 (figs. 1–5) (w and n shores of Australia; coast of New Guinea). Syntypes, BMNH 1846.9.11.16 (1), Australia, coll. Jukes. [1 syntype lost].

*Muraena pfeifferi* Bleeker 1853d: 173 (Makasar [Ujung Pandang], Sulawesi [Celebes], Indonesia). Lectotype, BMNH 1867.11.28.286, designated by Böhlke & Randall 2000: 248.

*Muraena elegantissima* Kaup 1856b: 67 (Australia?). Holotype (unique), MNHN B.2466.

*Muraena polyophthalmus* Bleeker 1858a: 15 (Manado, Sulawesi [Celebes], Indonesia). Holotype (unique), BMNH 1867.11.28.332.

*Gymnothorax hilonis* Jordan & Evermann 1903: 167 (Hilo, Hawaii I., Hawaiian Is., U.S.A.). Holotype (unique), USNM 50618.

*Gymnothorax thomsoni* Borodin 1928: 8, pl. 2 (figs. 1–2) (Galápagos Is. [or Cocos I., e Pacific]). Holotype (unique), AMNH 225216 [ex VMM 411].

*Gymnothorax pictus kowanensis* Aoyagi 1943: 27, fig. 9 (Bay of Kowan, Okinawa I., Ryukyu Is., Japan). Holotype (unique), not at YCM, apparently lost.

VERTEBRAE: 7–11, 56–62, 128–135 (MVF 9, 58, 131).

DISTRIBUTION: Indo-Pacific; eastern Pacific islands.

***Gymnothorax pikei* Bliss 1833**

*Gymnothorax pikei* Bliss (ex Steindachner) 1883: 59 (Mauritius). Holotype (unique), MCZ 6145.

*Gymnothorax pikei* Seale 1917: 90 (Mauritius). Holotype (unique), MCZ 6145.

VERTEBRAE: 6, 59, 149 (holotype).

DISTRIBUTION: Mauritius and Papua New Guinea.

REMARKS: This species was based on a manuscript name by Steindachner. It was described independently by Bliss (1883) and Seale (1917).

***Gymnothorax pindae* Smith 1962**

*Gymnothorax pindae* Smith 1962: 430, pl. 55 (fig. D) (Pinda, Mozambique). Holotype (unique), SAIAB 105.

VERTEBRAE: 5–7, 42–46, 110–124 (MVF 6, 44, 121).

DISTRIBUTION: Indo-West Pacific.

***Gymnothorax polygonius* Poey 1875**

*Gymnothorax polygonius* Poey 1875: 68, pl. 10 (Cuba). Holotype (unique), USNM 9825.

VERTEBRAE: 4–6, 51–55, 135–142 (MVF 5, 53, 138).

DISTRIBUTION: Eastern and western Atlantic.

***Gymnothorax polyspondylus* Böhlke & Randall 2000**

*Gymnothorax polyspondylus* Böhlke & Randall 2000: 251, figs. 10–11 (nw of Oahu, 21°41'N, 158°06'W, Hawaiian Is., U.S.A., 180–200 m). Holotype (unique), BPBM 24821.

VERTEBRAE: 4–89–233 (holotype).

DISTRIBUTION: Hawaiian Islands.

***Gymnothorax polyuranodon* (Bleeker 1853)**

*Muraena polyuranodon* Bleeker 1853c: 248 (Ceram, Indonesia). Holotype (unique), whereabouts unknown.

*Polyuranodon kuhlii* Kaup 1856a: 65 (Ceram, Indonesia). Replacement name for *M. polyuranodon*.

*Uropterygius fijiensis* Fowler & Bean 1923: 9 (Lebukea, Fiji Is.). Holotype (unique), USNM 82774.

VERTEBRAE: 9–16, 67–75, 141–148 (MVF 12, 70, 144).

DISTRIBUTION: Indo-West Pacific.

***Gymnothorax porphyreus* (Guichenot 1848)**

*Murenophis porphyreus* Guichenot 1848: 342, pl. 11 (fig. 2) (Juan Fernández Is., se Pacific). Syntypes, whereabouts unknown.

*Muraena chilensis* Günther 1872: 674 (Chile). Holotype (unique), BMNH 1871.9.13.881.

*Gymnothorax wieneri* Sauvage 1883: 161 [18] (Chile or Peru). Syntypes, MNHN A-4868 (2).

*Gymnothorax obscurirostris* Rendahl 1921: 62 (Easter I., se Pacific). Holotype (unique), NRM 7103.

*Gymnothorax griffini* Whitley & Phillipps 1939: 229 (White I., Bay of Plenty, New Zealand). Holotype (unique), AIM 29.1.

VERTEBRAE: 5–8, 57–62, 137–144 (MVF 6, 59, 140).

DISTRIBUTION: Southern Pacific.

REMARKS: Böhlke & McCosker (2001) and Böhlke & Smith (2002) put *Gymnothorax griffini* in the synonymy of *Gymnothorax obesus*, although without seeing the specimen. McCosker & Stewart (2006) examined the specimen and determined that it is a synonym of *G. porphyreus*.

***Gymnothorax prasinus* (Richardson 1848)**

*Muraena prasina* Richardson 1848: 93 (Bondi Bay, Sydney, Australia). Holotype (unique), BMNH 2008.3.23.2 (mounted head and left skin).

*Gymnothorax jacksoniensis* Bleeker 1863d: 450 (Port Jackson, N. S. W., Australia). Holotype (unique), RMNH 3780.

*Muraena callorhyncha* Günther 1870: 122 (Fremantle, Western Australia). Holotype (unique), BMNH 1861.5.18.7.

*Muraena krulli* Hector 1877: 468, pl. 8 (bottom) (Bay of Islands, New Zealand). Holotype (unique), AIM (missing).

*Gymnothorax leecote* Scott 1965: 54, fig. 1 (Off George Rock, n of St. Helen's, Tasmania, Australia, 10 fm). Holotype (unique), QVM 1964,5,0015 [ex QVM type 123].

VERTEBRAE: 4–7, 56–60, 134–140 (MVF 5, 58, 137).

DISTRIBUTION: Southwestern Pacific.

***Gymnothorax prionodon* Ogilby 1895**

*Gymnothorax prionodon* Ogilby 1895: 720 (Port Jackson, N. S. W., Australia). Holotype (unique), AMS I.3324.

*Muraena miersowskii* Steindachner 1896: 222 (Japan). Holotype (unique), NMW 61642.

*Gymnothorax leucostigma* Jordan & Richardson 1909: 174, pl. 68 (Kao-Hsiung [Takao], Taiwan). Holotype (unique), FMNH 52124 [ex CM 253].

*Gymnothorax nirosus* Tanaka 1918: 51 (Nagasaki fish market, Japan). Holotype (unique), ZUMT 8628 (lost).

*Muraena shirleyi* Griffin 1933: 172, pl. 24 (top); fig. (Mokohinau Is., New Zealand). Holotype (unique), AIM 289.1.

*Lycodontis wooliensis* Whitley 1968: 33, pl. 8, fig. 1 (20 mi. off Wooli, sw Australia, 29°52'S, 153°20'E). Holotype (unique), AMS IB.7941.

VERTEBRAE: 4–7, 53–58, 135–142 (MVF 6, 54, 138).

DISTRIBUTION: Western Pacific.

***Gymnothorax prismodon* Böhlke & Randall 2000**

*Gymnothorax prismodon* Böhlke & Randall 2000: 253, figs. 12–14 (Off Makaha Beach, Oahu I., Hawaiian Is., U.S.A., 44 m). Holotype, BPBM 15508 (461 mm TL).

VERTEBRAE: 3–5, 65–70, 139–153 (MVF 4, 66, 142).

DISTRIBUTION: Hawaiian Islands.

***Gymnothorax prolatus* Sasaki & Amaoka 1991**

*Gymnothorax prolatus* Sasaki & Amaoka 1991: 7, figs. 1–3 (Suao fish market, ne coast of Taiwan). Holotype (unique), HUMZ 107775.

VERTEBRAE: 6–8, 79–83, 182–187 (MVF 7, 81, 184).

DISTRIBUTION: Indo-West Pacific.

***Gymnothorax pseudoherrei* Böhlke 2000**

*Gymnothorax pseudoherrei* Böhlke 2000: 408, figs. 2F, 3D, 7 (W side of Solino [Selinog] I., Zamboanga Del Norte, Mindanao, Philippines, 8°51'24"N, 123°24'36"E, , 0–4.6 m). Holotype, USNM 357430.

VERTEBRAE: 5–9, 44–50, 110–118 (MVF 6, 47, 114).

DISTRIBUTION: Indo-West Pacific.

***Gymnothorax pseudothyrsoides* (Bleeker 1852)**

*Muraena pseudothyrsoides* Bleeker 1852a: 778 (Makasar [Ujung Pandang], Sulawesi [Celebes], Indonesia). Holotype (unique), BMNH 1867.11.28.246.

*Gymnothorax makassariensis* Bleeker 1863b: 168 (Makasar [Ujung Pandang], Sulawesi [Celebes], Indonesia). Holotype (unique), RMNH 3768.

VERTEBRAE: 3–5, 55–61, 122(?)–134 (MVF 5, 55, 128).

DISTRIBUTION: Indo-West Pacific.



***Gymnothorax punctatofasciatus* Bleeker 1863**

*Gymnothorax punctatofasciatus* Bleeker 1863b: 167 (Ambon I., Molucca Is., Indonesia). Lectotype, BMNH 1867.11.28.280, designated by Smith & Böhlke 1997: 184.

VERTEBRAE: 5–9, 53–57, 132–139 (MVF 7, 54, 136).

DISTRIBUTION: Western Pacific.

***Gymnothorax punctatus* Bloch & Schneider 1801**

*Gymnothorax punctatus* Bloch & Schneider 1801: 526 (Tranquebar, India). Syntypes, ZMB 6141 (1, stuffed), 3989 (1).

VERTEBRAE: 4–5, 53–55, 132–136 (MVF 5, 54, 134).

DISTRIBUTION: Western Indian Ocean.

***Gymnothorax randalli* Smith & Böhlke 1997**

*Gymnothorax randalli* Smith & Böhlke 1997: 185, figs. 1, 2, 8 (Sorongjunkong, Lombok, Indonesia). Holotype, BPBM 30138.

VERTEBRAE: 7–9, 48–52, 124–130 (MVF 8, 50, 127).

DISTRIBUTION: Indo-West Pacific.

***Gymnothorax reevesii* (Richardson 1845)**

*Muraena reevesii* Richardson 1845a: no p., pl. 49 (fig. 2) (China seas). No types

*Muraena microspila* Günther 1870: 109 (E. Indian Archipelago). Holotype (unique), BMNH 1867.11.28.238.

VERTEBRAE: 4–5, 52–58, , 124–132 (MVF 4, 55, 128).

DISTRIBUTION: Indo-WestPacific.

***Gymnothorax reticularis* Bloch 1795**

*Gymnothorax reticularis* Bloch 1795: 85, pl. 416 (Coromandel coast, India). Holotype (unique), ZMB 3986.

VERTEBRAE: 5–6, 48–51, 114–126 (MVF 6, 49, 119).

DISTRIBUTION: Indian Ocean.

REMARKS: This species is known from the coast of India and the Red Sea. The single Red Sea Specimen has more vertebrae (126) than the Indian specimens (114–120) (Smith and Böhlke 1997: 187).

***Gymnothorax richardsonii* (Bleeker 1852)**

*Muraena richardsonii* Bleeker 1852b: 296 (Wahai, n Ceram and Padang, w Sumatra, Indonesia). Lectotype, RMNH 7201, designated by Böhlke & Smith 2002: 145. [Günther 1870: 118, first reviser]

*Muraena ceramensis* Bleeker 1852b: 297 (Wahai, n Ceram, Indonesia). Lectotype, RMNH 7200, designated by Böhlke & Smith 2002: 100.

*Muraena troschelii* Bleeker 1853a: 45 (Boleling, n Bali; Sibogha, w Sumatra, Indonesia). Holotype (unique), RMNH 3784 [not 7201].

*Muraena scoliodon* Bleeker 1853a: 43 (Sibogha, w Sumatra, Indonesia). Holotype (unique), BMNH 1867.11.28.327.

*Muraena florisiana* Bleeker 1854a: 334 (Larantuka, Flores I., Lesser Sunda Is., Indonesia). Syntypes, not located.

*Muraena vermicularis* Peters 1855:459 (Ibo I., Querimbas Is., Mozambique). Holotype (unique), ZMB 4005.

*Muraena diplodon* Peters 1855: 460 (Ibo I., Querimbas Is., Mozambique). Syntypes, ZMB 4006 (2), 4007 (1).

*Thyrsoidea multifasciata* Kaup 1856b: 87 (Molucca Is., Indonesia). Lectotype, RMNH 3789, designated by Böhlke & Smith 2002: 130.

*Muraena venosa* Kaup 1856b: 68 (Timor I., s Malay Archipelago). Syntypes, RMNH (2) not found.

*Muraena chrysops* Kaup 1856b: 70 (Tahiti, Society Is). Holotype (unique), MNHN 2118.

*Muraena modesta* Kaup 1859: 21, pl. 4 (fig. 2). (Zanzibar). Holotype (unique), ZMH 3772.

VERTEBRAE: 7–11, 46–52, 112–117 (MVF 9, 50, 115).

DISTRIBUTION: Indo-West Pacific.

REMARKS: *Muraena richardsonii* and *M. ceramensis* were described in the same publication. Günther (1870: 118) included *ceramensis* in the synonymy of *Muraena richardsonii*, becoming the first reviser.



***Gymnothorax robinsi* Böhlke 1997**

*Gymnothorax robinsi* Böhlke 1997b: 648, figs. 1–3 (Kai I., off nw corner of Tajandoe I., Indonesia, 5°31'24"S, 132°17'48"E, 3–6 m). Holotype, ANSP 144431.

VERTEBRAE: 5–8, 46–52, 105–112 (MVF 7, 49, 107).

DISTRIBUTION: Indo-West Pacific.

***Gymnothorax rueppellii* (McClelland 1844)**

*Dalophis rueppelliae* McClelland 1844: 213 (Red Sea). Lectotype, SMF 151, designated by Böhlke 1982: 44.

*Muraena umbrofasciata* Rüppell 1852: 33 (Red Sea). Syntypes, SMF 151 (1), 2870 (1, skeleton, lost), 7346 (1, missing).

*Muraena nigrolineata* Kaup 1856b: 66 (Marquesas Is). Holotype (unique), MNHN B-2467.

*Muraena interrupta* Kaup 1856b: 67, pl. 10 (fig. 51) (Clot Bay, Red Sea). Holotype (unique), MNHN B-2470.

*Muraena petelli* Bleeker 1856b: 84 (Ora Malang, Java, Indonesia). Holotype (unique), BMNH 1867.11.28.282.

*Sidera chlevastes* Jordan & Gilbert 1883d: 208 (Galapagos Is. [probably in error]). Holotype (unique), USNM 20385.

*Gymnothorax signifer* Bliss 1883: 58 (Mauritius). Holotype (unique), MCZ 6147.

*Gymnothorax leucacme* Jenkins 1903: 427, fig. 7 (Honolulu, Oahu I., Hawaiian Is., U.S.A.). Holotype, USNM 50682.

*Gymnothorax waialuae* Snyder 1904: 520, pl. 6 (fig. 11) (Waialua Bay, Oahu I., Hawaiian Is., U.S.A.). Holotype (unique), USNM 50870.

VERTEBRAE: 4–5, 50–55, 125–135 (MVF 5, 52, 131).

DISTRIBUTION: Indo-West Pacific.

***Gymnothorax ryukyuensis* Hatooka 2003**

*Gymnothorax ryukyuensis* Hatooka 2003: 2, figs. 1, 2, 4. (Ryukyu Is). Holotype, FAKU 51606.

VERTEBRAE: 4–5, 57–59, 133–137.

DISTRIBUTION: Ryukyu Is.

***Gymnothorax sagmacephalus* Böhlke 1997**

*Gymnothorax sagmacephalus* Böhlke 1997a: 100, figs. 12–14 (Yokohama Aquarium, Tokyo Bay, Japan). Holotype (unique), USNM 149777.

VERTEBRAE: 7, 77, 172+ (holotype).

DISTRIBUTION: Japan.

***Gymnothorax saxicola* Jordan & Davis 1891**

*Gymnothorax ocellatus* var. *saxicola* Jordan & Davis 1891: 606 (Cedar Keys, Florida, Gulf of Mexico, U.S.A.). Lectotype, USNM 34280 designated by Smith 1994: 19.

VERTEBRAE: 4–7, 47–59, 134–147 (MVF 6, 53, 140).

DISTRIBUTION: Western Atlantic.

***Gymnothorax serratidens* (Hildebrand & Barton 1949)**

*Priodonophis serratidens* Hildebrand & Barton 1949: 3, fig. 1 (Talara, Peru). Holotype (unique), USNM 144253.

VERTEBRAE: 8, 68, 156 (holotype).

DISTRIBUTION: Southeastern Pacific.

***Gymnothorax shaoi* Chen & Loh 2007**

*Gymnothorax shaoi* Chen & Loh 2007: 76, figs. 1, 2, 3a, 4 (Taiwan). Holotype, ASIZP 0062978.

VERTEBRAE: 3–5, 53–57, 125–130.

DISTRIBUTION: Taiwan.

***Gymnothorax sokotrensis* Kotthaus 1968**

*Gymnothorax sokotrensis* Kotthaus 1968: 18, figs. 107, 150 (Off Sokotra I., Indian Ocean, 11°33.9'N, 52°54'E to 11°38'N, 52°52'E, Meteor sta. 102). Holotype (unique), ZMH 4940 [ex IOES 43].

VERTEBRAE: 8, 62, 143 (holotype).

DISTRIBUTION: Northwestern Indian Ocean.

***Gymnothorax steindachneri* Jordan & Evermann 1903**

*Gymnothorax steindachneri* Jordan & Evermann 1903: 166 (Honolulu, Oahu I., Hawaiian Is., U.S.A.). Holotype, USNM 50616.

VERTEBRAE: 4–6, 49–51, 131–135 (MVF 5, 50, 132).

DISTRIBUTION: Hawaiian Islands.

***Gymnothorax taiwanensis* Chen, Loh & Shao 2008**

*Gymnothorax taiwanensis* Chen, Loh & Shao 2008: 132, figs. 1, 2 (Taiwan). Holotype, ASIZ P0069371.

VERTEBRAE: 5–6, 55–56, 117–121.

DISTRIBUTION: Taiwan.

***Gymnothorax thyrsoideus* (Richardson 1845)**

*Muraena thyrsoidea* Richardson 1845b: 111 (Canton, China seas). Lectotype, BMNH 2008.4.21.1 (651 mm TL), designated by Böhlke 1995: 463.

*Muraena prosopeion* Bleeker 1853b: 300 (Cauer, Priaman, Sumatra, Indonesia). Lectotype, RMNH 7195 (370 mm TL), designated by Böhlke 1995: 465.

*Thyrsoidea arenata* Kaup 1856a: 61 (China). Holotype, BMNH uncat. (651 mm TL) or MNHN A-8810. See Böhlke and Smith 2002: 94 for explanation of uncertainty over holotype.

*Echidna kishinouyei* Jordan & Snyder 1901: 885, fig. 21 (Okinawa I., Ryukyu Is., Japan). Holotype (unique), SU 6481.

VERTEBRAE: 3–6, 48–52, 125–137 (MVF 4, 50, 133).

DISTRIBUTION: Western and central Pacific.

***Gymnothorax tile* (Hamilton 1822)**

*Muraenophis tile* Hamilton 1822: 18, 363 (Ganges R. estuaries near Calcutta, India). No types known.

*Lycodontis literata* McClelland 1844: 186 (203, 215), pl. 7 (fig. 2) (Calcutta market, Bengal, India). No types known.

*Strophidon maculata* McClelland 1844: 203, 215, pl. 8 (fig. 1). A replacement name for *M. tile*.

*Muraena vermiculata* Richardson 1848: 92 (India). Holotype (unique), BMNH 2008.4.21.2.

*Muraena gracilis* Richardson 1848: 92 (India). Lectotype, BMNH 2008.4.9.5 (307 mm), designated by Böhlke & Smith 2002: 113.

*Thyrsoidea microdon* Kaup 1856a: 62 (Pondichéry, India). Holotype, MNHN B-2469.

*Gymnothorax borneensis* Bleeker 1863: 169 (Borneo). Holotype (unique), RMNH 3797.

VERTEBRAE: 7–12, 55–58, 120–130 (MVF 10, 57, 125).

DISTRIBUTION: Indo-West Pacific.

***Gymnothorax undulatus* (Lacepède 1803)**

*Muraenophis undulata* Lacepède (ex Commerson) 1803: 629, 642, pl. 19 (fig. 2) (No locality). Holotype (unique), whereabouts unknown.

*Muraena cancellata* Richardson 1848: 87, pl. 46 (figs. 1–5) (w Australia; n Australia; Sumatra, Indonesia). Syntypes, BMNH (3, not found), MNHN (not found).

*Muraena valenciennii* Eydoux & Souleyet 1850: 207, pl. 8 (fig. 1) (Hawaiian Is., U.S.A.). Holotype, MNHN 0487.

*Muraena blochii* Bleeker 1853a: 49 (Sibogha, w Sumatra, Indonesia). Holotype (unique), BMNH 1867.11.28.330 (reported missing by Böhlke & Smith 2002, but presence confirmed by J. McClaine, pers. comm.).

*Muraena agassizi* Bleeker 1855b: 458 (Cocos Is., Indian Ocean). Holotype (unique), BMNH 1867.11.28.250.

*Thyrsoidea kaupii* Abbott 1860: 477 (Hawaiian Is., U.S.A.). Holotype (unique), ANSP 916.

*Muraena acutirostris* Abbott 1860: 476 (Hawaiian Is., U.S.A.). Holotype (unique), ANSP 998.

VERTEBRAE: 4–6, 51–55, 126–138 (MVF 5, 53, 132).

DISTRIBUTION: Indo-Pacific.

***Gymnothorax unicolor* (Delaroche 1809)**

*Muraenophis unicolor* Delaroche 1809: 359 [73], pl. 25 (fig. 15) (Ibiza, Balearic Is., Spain). Holotype, MNHN B-2413.

*Muraenophis cristini* Risso 1810: 368 (Nice, France). Holotype, MNHN (not found).

VERTEBRAE: —, —, 136–146.

DISTRIBUTION: Eastern Atlantic.

***Gymnothorax vagrans* (Seale 1917)**

*Muraena vagrans* Seale 1917: 88 (Questionably South America). Holotype (unique), MCZ 2532B.

VERTEBRAE: ca 3, 56, 139 (holotype).

DISTRIBUTION: Unknown locality.

***Gymnothorax verrilli* (Jordan & Gilbert 1883)**

*Sidera verrilli* Jordan & Gilbert 1883b: 623 (Panama [Pacific]). Holotype (unique), YPM 8042.

VERTEBRAE: 5, 71–77, 170–171 (MVF 5, 74, 170).

DISTRIBUTION: Eastern Pacific.

***Gymnothorax vicinus* (Castelnau 1855)**

*Murenophis vicina* Castelnau 1855: 81, pl. 42 (fig. 4) (Bahia, Brazil). Holotype (unique), MNHN B-2423.

*Thyrsoidea cormura* Kaup 1859: 23, suppl. 4, pl. 3 (fig. 2) (Puerto Cabella, Venezuela). No types known.

*Muraena erebus* Poey 1861: 426 (Cuba). No types known.

*Gymnothorax obscuratus* Poey 1870: 320 (Havana, Cuba). Holotype (unique), MCZ 27217.

*Gymnothorax virescens* Poey 1876: 198 [156], pl. 9 [6] (fig. 1) (Cuba). Holotype, not at MCZ.

*Gymnothorax versipunctatus* Poey 1876: 199 [157], pl. 10 [7] (Cuba). No types.

*Leptocephalus forssstromi* Strömman 1896: 24, pl. 2 (figs. 1–3) (central Atlantic, 3°–4°S, 30°–34°W). Syntypes, ZMUU (4).

*Gymnothorax carcinognathus* Fowler 1912: 22, fig. 5 (St. Martin I., West Indies). Holotype (unique), ANSP 38163.

*Gymnothorax cyanopunctatus* Howell Rivero 1932: 17 (Matanzas, Cuba). Holotype, MCZ 32787.

*Lycodontis guarapariensis* Pinto 1975: 401, figs. 1–2 (Guarapari, Espírito Santo, Brazil). Holotype, MHNI 208.

VERTEBRAE: 3–6, 48–53, 128–140 (MVF 5, 51, 133).

DISTRIBUTION: Eastern and western Atlantic.

***Gymnothorax walvisensis* Prokofiev & Kukuev 2009**

*Gymnothorax walvisensis* Prokofiev & Kukuev 2009: 220, fig. 3 (Walvis Ridge, Atlantic Ocean). Holotype ZIN 54129.

VERTEBRAE: 5, 50, 134.

DISTRIBUTION: Southeastern Atlantic.

***Gymnothorax woodwardi* McCulloch 1912**

*Gymnothorax woodwardi* McCulloch 1912: 80 [3], fig. 1 (Pelsart I., Houtman Abrolhos, Western Australia). Holotype, WAM P.13263-001.

VERTEBRAE: 4–5, 56–58, 134–141 (MVF 4, 57, 137).

DISTRIBUTION: Australia.

***Gymnothorax ypsilon* Hatooka & Randall 1992**

*Gymnothorax ypsilon* Hatooka & Randall 1992: 183, figs. 1–2 (Near Uotsurijima I., Senkaku Is., Japan). Holotype, URM-P 1783.

VERTEBRAE: 5–7, 55–60, 141–153 (MVF 6, 56, 149).

DISTRIBUTION: Western and central Pacific.

***Gymnothorax zonipectis* Seale 1906**

*Gymnothorax zonipectis* Seale 1906: 7, fig. 1 (Tahiti, Society Is). Holotype (unique), BPBM 1362.

*Gymnothorax indong* Seale 1910: 491 (Zamboanga, Mindanao, Philippines). Holotype (unique), BSMP 4445 (apparently destroyed).

VERTEBRAE: 4–6, 47–50, 123–130 (MVF 6, 48, 126).

DISTRIBUTION: Indo-West Pacific.

### Genus *Monopenchelys* Böhlke & McCosker 1982

*Monopenchelys* Böhlke & McCosker 1982: 127. Type species *Uropterygius acutus* Parr 1930, by original designation (also monotypic). Feminine.

#### *Monopenchelys acuta* (Parr 1930)

*Uropterygius acutus* Parr 1930: 16, fig. 2 (West Caicos I., Bahamas, 30 fm [stomach contents]). Holotype (unique), YPM 2604.

VERTEBRAE: 67–78, 50–56, 124–144 (MVF 73, 53, 131).

DISTRIBUTION: Cosmopolitan.

REMARKS: The wide range of vertebral counts and the broad distribution suggest that more than one species may be involved.

### Genus *Muraena* Linnaeus 1758

*Muraena* Linnaeus 1758: 244. Type species *Muraena helena* Linnaeus 1758, by Opinion 1672, ICZN. Feminine.

*Murenophis* Cuvier 1797: 329. Type species *Muraena helena* Linnaeus 1758, by monotypy. Masculine.

*Muraenophis* Lacepède 1803: 627. Unjustified emendation of *Murenophis* Cuvier, 1797.

*Limomuraena* Kaup 1856a: 65. Type species *Limomuraena guttata* Kaup 1856, by monotypy. Feminine. (Sometimes misspelled as *Limamuraena*).

REMARKS: Jordan and Gilbert (1883a: 355) designated *Muraena helena* as the type species of *Muraena*, overlooking Bleeker's (1864b: 113) earlier designation of *M. anguilla*. The International Commission on Zoological Nomenclature, in Opinion 1672, suppressed Bleeker's priority and placed *helena* on the Official List as the type species of *Muraena*.

#### *Muraena argus* (Steindachner 1870)

*Gymnothorax* (*Limamuraena*) *argus* Steindachner 1870: 639 [17], pl. 4 (Altata, Sinaloa, w coast of Mexico). Holotype (unique), NMW 75551.

*Muraena albigutta* Hildebrand 1946: 132, fig. 30 (Lobos de Afuera I., Peru, 6°56'S, 80°43'W). Holotype, USNM 127840.

VERTEBRAE: 4–5, 53, 128–129 (MVF 4, 53, 128).

DISTRIBUTION: Eastern Pacific.

#### *Muraena augusti* (Kaup 1856)

*Muraena guttata* Solander and Richardson in Richardson 1848:90. Preoccupied by *Muraena guttata* Forsskål 1775 (Pseudochromidae).

?*Thyrsoidea dumerili* Kaup 1856a: 62.

*Thyrsoidea augusti* Kaup 1856b: 88 (Madeira). No types known.

*Thyrsoidea atlantica* Johnson 1862: 68 (Sea near Madeira, ne Atlantic). Holotype (unique), BMNH 1862.2.5.2.

*Muraena bettencourti* Osório 1911: 76, pl. 2 (fig. 2) (Ilha de Santo Antão, Cape Verde Is.). Holotype (unique), MB (destroyed in 1978 fire).

VERTEBRAE: 4–5, 51–55, 137–143.

DISTRIBUTION: Eastern Atlantic.

REMARKS: For some time, this species was considered a synonym of *Muraena helena* Linnaeus 1758, but its distinction has recently been confirmed (Jimenez et al. 2007). Kaup (1856a: 62) presented the name *Thyrsoidea dumerili* (written as *Th. A. Dumerili* Kp.) and stated (translated from German) “Sir Richardson confused this species with *Lemamuraena* [sic] *guttata*,” apparently intending the new name to apply to the species described by Richardson under the name *guttata*. *Limomuraena guttata* appeared on page 65 of the same publication (Kaup

1856a), apparently as a new combination for *Muraena guttata* Solander and Richardson. This treatment makes little sense, as Kaup was apparently accepting and rejecting Richardson's identification at the same time. The name *dumerili* never appeared again, and Kaup (1865b: 88) described a new species, *Thyrsoidea augusti*, based on a verbatim copy of Richardson's description of *Muraena guttata*. One could make a case that *dumerili* has priority over *augusti*, but considering the confusion over what Kaup was referring to, this would probably be unwise. As the name *dumerili* has never been used since (even by Kaup), it could in any case be considered a nomen oblitum under Article 23.9 of the ICZN.

***Muraena clepsydra* Gilbert 1898**

*Muraena clepsydra* Gilbert in Jordan & Evermann 1898: 2805 (Panama [Pacific]). Holotype, SU 6807.

VERTEBRAE: 4–5, 47–53, 123–129(MVF 5, 50, 126).

DISTRIBUTION: Eastern Pacific.

***Muraena helena* Linnaeus 1758**

*Muraena helena* Linnaeus 1758: 244 (Europe; America). Syntypes, ZMUU Linn. Coll. 57 (1, only surviving specimen).

*Gymnothorax muraena* Bloch & Schneider 1801: 525. No types known.

*Muraena romana* Shaw 1803: 26 (Mediterranean Sea). No types known.

*Muraena punctata* Rafinesque 1810a: 68, pl. 15 (fig. 2) (Sicily). No types known.

*Muraena variegata* Rafinesque 1810a: 67 (Sicily). No types known.

*Muraenophis fulva* Risso 1810: 367 (Nice, France). No types known.

*Muraena guttata* Risso 1827: 191 (Nice, France). No types known. Preoccupied by *Muraena guttata* Forsskål 1775 (Pseudochromidae).

*Muraena helena australiae* Richardson 1848: 80, pl. 49 (figs. 1–6) (Eastern Atlantic, not Australia). Holotype (unique), BMNH 1847.5.10.16.

*Muraena vorax* Ogilby 1907: 11 (Eastern Atlantic based on type, not Western Australia). Holotype (unique), BMNH 1847.5.10.16. Unnecessary replacement name for *Muraena helena australiae* Richardson 1848.

*Muraena bettencourti* Osório 1911: 76, pl. 2 (fig. 2) (Ilha de Santo Antão, Cape Verde Is.). Holotype (unique), MB (destroyed in 1978 fire).

VERTEBRAE: 4–5, 59–63, 139–148.

DISTRIBUTION: Eastern North Atlantic.

REMARKS: Wheeler (1991) described the difficulties in interpreting Linnaeus's descriptions of species. Often, earlier works cited by Linnaeus need to be consulted to flesh out the descriptions and determine what he was dealing with. In the case of *Muraena helena*, several previous works are referred to, and the species was said to occur on both sides of the Atlantic (“in Europæ, Americæ Oceano”), implying that it was based on more than one species. The only surviving syntype, ZMUU 57, is in fact not the species currently known by that name. It is instead a specimen of *Echidna*, probably *Echidna polyzona* Richardson 1845 (Wheeler 1991: 161). This further complicates the matter, as *Echidna polyzona* is an Indo-Pacific, not an Atlantic, species. *Muraena helena* as currently understood is one of the longest-known and most familiar species of eel in the world. It was important to the Romans 2000 years ago, who consumed it, kept it in pens, and depicted it on their mosaics. There is no confusion over its identity. At some point it may be desirable to fix the name by setting aside the existing syntype and establishing a neotype. That, however, is beyond the scope of this paper.

***Muraena lentiginosa* Jenyns 1842**

*Muraena lentiginosa* Jenyns 1842: 143 (Santa María I. [Charles I.], Galápagos Is.). Lectotype, BMNH 1917.7.14.13, designated by Böhlke & Smith 2002: 120.

*Murenophis marmoreus* Valenciennes 1846: no p., pl. 10 (fig. 1) (Galápagos Is.). Holotype (unique), MNHN A-8533.

*Muraena aquaedulcis* Cope 1872: 474 (Río Grande, near San José, Costa Rica). Holotype (unique), ANSP 14925. See *Echidna nocturna* for comments on the stated locality.

*Muraena pinta* Jordan & Gilbert 1882a: 345 (Mazatlán Harbor, Sinaloa, Mexico). Lectotype, USNM 28177, designated by Smith 1994: 22.



*Muraena insularum* Jordan & Davis 1891: 609 (San Cristóbal I. [Chatham I.], Galápagos Is.). Holotype, USNM 38300.

*Lycodontis xanthospilus* Fowler 1944: 317, figs. 69–71 (James Bay, James I., Galápagos Is.). Holotype (unique), ANSP 70026.

VERTEBRAE: 4–5, 44–51, 113–130 (or 126?) (MVF 4, 48, 118).

DISTRIBUTION: Eastern Pacific.

***Muraena melanotis* (Kaup 1859)**

*Limamuraena melanotis* Kaup 1859: 27, pl. 4 (fig. 3) (West Africa). Holotype (unique), ?ZMH H390.

*Muraena* (*Muraena*) *albomarginata* Pfaff 1933: 305, pl. 6 (figs. 1–3) (Dakar, w Africa). Holotype (unique), ZMUC.

VERTEBRAE: —, —, 121–127.

DISTRIBUTION: Eastern Atlantic and St. Paul's Rocks, central Atlantic.

***Muraena pavonina* Richardson 1845**

*Muraena pavonina* Richardson 1845a: no p., pl. 53 (figs. 1–6) (No locality [probably Ascension I.]). Holotype (unique), BMNH 1985.2.19.4.

VERTEBRAE: 3–5, 49–52, 122–129 (MVF 4, 50, 127).

DISTRIBUTION: Southwestern Atlantic; Eastern Atlantic.

***Muraena retifera* Goode & Bean 1882**

*Murenophis punctata* Castelnau 1855: 82, pl. 42 (fig. 3) (Rio de Janeiro, Brazil) Holotype, MNHN B-2411. Secondarily preoccupied by *Muraena punctata* Rafinesque 1810.

*Muraena retifera* Goode & Bean 1882: 435 (Charleston, South Carolina, U.S.A.). Holotype (unique), USNM 31393.

VERTEBRAE: 4–6, 52–58, 128–135 (MVF 4, 56, 131).

DISTRIBUTION: Western Atlantic.

***Muraena robusta* Osório 1911**

*Muraena robusta* Osório 1911: 75, pl. 2 (fig. 1) (Ilha de Santo Antão, Cape Verde Is.). Holotype (unique), MB (destroyed in 1978 fire).

*Gymnothorax nevezi* Roux in Collignon, Rossignol & Roux 1957: 164, fig. 17 (Pointe-Noire, sw Congo). Syntypes, ORSTOM Pointe Noire or MNHN (1, described specimen).

*Gymnothorax galetae* Rubinoff 1966: 1, fig. 1 (Galeta I., 9°24'20"N, 79°52'18"W, Panama [Atlantic]). Holotype (unique), MCZ 44035.

VERTEBRAE: 3–4, 62–65, 149–158

DISTRIBUTION: Atlantic.

**Genus *Pseudechidna* Bleeker 1863**

*Pseudechidna* Bleeker 1863c: 272. Type species *Muraena brummeri* Bleeker 1858, by monotypy. Feminine.

***Pseudechidna brummeri* (Bleeker 1858)**

*Muraena brummeri* Bleeker 1858b: 137 (Atapupu, Timor I., s Malay Archipelago). Holotype (unique), BMNH 1867.11.28.259.

*Strophidon polyodon* Bleeker 1864a: 47 (Ambon I., Molucca Is., Indonesia). Holotype (unique), BMNH or RMNH (not found).

*Muraena taenioides* Günther 1872: 674 (Savai'i [Savay] I., Samoa Is.). Holotype (unique), BMNH 1871.9.13.154.

*Gymnothorax megapterus* Weber 1913: 57, pl. 7 (fig. 1) (Seba, Savu [Sawu] I., Siboga sta. 58). Holotype (unique), ZMA 108474.

VERTEBRAE: 4–7, 89–98, 201–214 (MVF 6, 93, 207).

DISTRIBUTION: Indo-West Pacific.



### Genus *Rhinomuraena* Garman 1888

*Rhinomuraena* Garman 1888: 114. Type species *Rhinomuraena quaesita* Garman 1888, by monotypy. Feminine.  
*Nettastomops* Steindachner 1906: 299. Type species *Nettastomops barbatula* Steindachner 1906, by monotypy. Masculine.

#### *Rhinomuraena quaesita* Garman 1888

*Rhinomuraena quaesita* Garman 1888: 114 [1], fig. (Ebon I., Marshall Is). Holotype (unique), MCZ 9170.

*Nettastomops barbatula* Steindachner 1906: 299 (Upolu I., Samoa Is.). Holotype (unique), NMW 61038.

*Rhinomuraena ambonensis* Barbour 1908: 40 (Tide pool, Ambon I., Molucca Is., Indonesia). Holotype (unique), MCZ 87067.

VERTEBRAE: 5, 89–90, 276–281 (holotypes of *quaesita* and synonyms).

DISTRIBUTION: Indo-West Pacific.

### Genus *Strophidon* McClelland 1844

*Strophidon* McClelland 1844: 187, 203, 214. Type species *Lycodontis longicaudata* McClelland 1844, by subsequent designation (Jordan & Snyder 1901:884). Masculine.

*Evenchelys* Jordan & Evermann 1902: 327. Type species *Muraena macrurus* Bleeker 1854, by original designation (also monotypic). Feminine.

*Rhabdura* Ogilby 1907: 12. Type species *Muraena macrurus* Bleeker 1854, by monotypy. Feminine.

#### *Strophidon sathete* (Hamilton 1822)

*Muraenophis sathete* Hamilton 1822: 17, 363 (Ganges estuaries near Calcutta, India). No types known.

*Lycodontis longicaudata* McClelland 1844: 187 (203, 215), pl. 8 (fig. 2) (Bengal). No types known.

*Muraena macrurus* Bleeker 1854b: 324 (Freto Sundaico, Anjer, Indonesia). Holotype (unique), BMNH 1867.11.28.212.

*Thyrsoidea longissima* Kaup 1856a: 61 (Bombay, India). Holotype (unique), MNHN 2134.

*Strophidon ui* Tanaka 1918: 52 (Tanaba, Wakayama Pref., Japan). Holotype (unique), ZUMT (lost).

VERTEBRAE: 8–11, 73–82, 186–208 (MVF 10, 78, 196).

DISTRIBUTION: Indo-West Pacific.

REMARKS: This species has commonly appeared in the literature as *Thyrsoidea macrura*, which was a new combination but not a new name.

### Subfamily Uropterygiinae

Ichthyophides Bleeker 1864–65: 6 (subfamily). *Ichthyophis* Lesson 1828, preoccupied.

Uropterygiinae Fowler 1936: 307 (subfamily). *Uropterygius* Rüppell 1838.

### Genus *Anarchias* Jordan & Starks 1906

*Anarchias* Jordan & Starks in Jordan & Seale 1906: 204. Type species *Anarchias allardicei* Jordan & Starks 1906, by original designation. Masculine.

#### *Anarchias allardicei* Jordan & Starks 1906

*Anarchias allardicei* Jordan & Starks in Jordan & Seale 1906: 204, fig. 9 (Pago Pago, American Samoa). Holotype, USNM 51715.

*Anarchias fuscus* Smith 1962: 428, pl. 53 (fig. G) (Delgado, Mozambique). Holotype, SAIAB 311.

*Anarchias maldiviensis* Klauswitz 1964: 665, fig. 1 (Rasdu Atoll, east of Weligandu I., Maldives, Indian Ocean). Holotype, SMF 7448.

VERTEBRAE: 85–92, 87–92, 97–102 (MVF 88, 89, 99).

DISTRIBUTION: Indo-West Pacific.

***Anarchias cantonensis* (Schultz 1943)**

*Uropterygius cantonensis* Schultz 1943: 27, pl. 4; fig. 3a (Lagoon of Canton I., Phoenix Is.). Holotype, USNM 115904.

VERTEBRAE: 86–94, 89–97, 98–108 (MVF 91, 93, 104).

DISTRIBUTION: Indo-West Pacific.

***Anarchias exulatus* Reece, Smith & Holm 2010**

*Anarchias exulatus* Reece, Smith & Holm, 2010: 425, figs. 3, 8 (Eua I., Tonga Is.). Holotype USNM 328944.

VERTEBRAE: 96–105, 97–107, 110–117 (MVF 100, 103, 114).

DISTRIBUTION: Central Pacific, anti-tropical.

***Anarchias galapagensis* (Seale 1940)**

*Uropterygius galapagensis* Seale 1940: 6, pl. 1 (Post Office Bay, Santa María I. [Charles I.], Galápagos Is.). Holotype (unique), CAS 5744.

VERTEBRAE: 102–109, 102–109, 105–112 (MVF 106, 106, 108).

DISTRIBUTION: Eastern Pacific.

***Anarchias leucurus* (Snyder 1904)**

*Uropterygius leucurus* Snyder 1904: 521, pl. 6 (fig. 12) (Auau Channel, between Maui I. and Lanai I., Hawaiian Is., Albatross sta. 3874, 21–28 fm). Holotype (unique), USNM 50871.

VERTEBRAE: 94–100, 98–102, 106–112 (MVF 98, 100, 110).

DISTRIBUTION: Hawaiian Islands.

***Anarchias longicauda* (Peters 1877)**

*Muraena longicauda* Peters 1877: 850 (South of Leton Rock, Atlantic, 15°40'01"N, 23°05'08"W, 38 fm). Holotype (unique), ZMB 9776.

*Leptocephalus euryurus* Lea 1913: 25, figs. 21–22; pl. 4 (no. 4) (North Atlantic, 28°52'N, 14°16'W, sta. 34, 200–500 m; 28°42'N, 20°00'W, sta. 45, 1000 m). Syntypes, (2) ZMUB 2502 (2?).

*Uropterygius grassi* Roule 1916: 6 (3/4 mi. southwest of St. Lucia, Cape Verde Is., sta. 1155, 52 m). Syntypes, (6) MOM 0091-0557 (4).

VERTEBRAE: —, —, 116–119.

DISTRIBUTION: Eastern Atlantic.

***Anarchias schultzi* Reece, Smith & Holm 2010**

*Anarchias schultzi* Reece, Smith & Holm 2010: 427, figs. 3, 9 (Tongatapu, Tonga Is.). Holotype USNM 334773

VERTEBRAE: 93–100, 96–103, 105–113 (MVF 96, 99, 109).

DISTRIBUTION: Western Pacific, Tonga to Caroline Is.

***Anarchias seychellensis* Smith 1962**

*Anarchias seychellensis* Smith 1962: 429, pl. 53 (fig. F) (Assumption I., Seychelles). Holotype, SAIAB 317.

VERTEBRAE: 105–120, 113–123, 121–132 (MVF 111, 117, 126).

DISTRIBUTION: Indo-West Pacific.

***Anarchias similis* (Lea 1913)**

*Leptocephalus similis* Lea 1913: 26, figs. 23–24; pl. 4 (nos. 5–6) (North Atlantic, 34°44'N, 47°52'W, sta. 64, 100 and 1000 m). Syntypes, ZMUB 2504 (1), 5113 (1).

*Anarchias yoshiae* Kanazawa 1952: 75, fig. 10 (Ship's channel, Bermuda). Holotype, FMNH 48729.

VERTEBRAE: 94–104, 95–106, 104–113 (MVF 97, 102, 107).

DISTRIBUTION: Atlantic.

***Anarchias supremus* McCosker & Stewart 2006**

*Anarchias supremus* McCosker & Stewart 2006: 84, figs. 1–3. (New Zealand). Holotype, NMNZ P.38142.

VERTEBRAE: 122, 127, 135 (holotype).

DISTRIBUTION: New Zealand.

### Genus *Channomuraena* Richardson 1848

*Channomuraena* Richardson 1848: 96. Type species *Ichthyophis vittatus* Richardson 1845, by monotypy. Feminine.

*Cirrimaxilla* Chen & Shao 1995: 328. Type species *Cirrimaxilla formosa* Chen & Shao 1995, by original designation (also monotypic). Feminine.

#### *Channomuraena bauchotae* Saldanha & Quéro 1994

*Channomuraena bauchotae* Saldanha & Quéro 1994: 308, fig. 1 (Réunion, Indian Ocean, 19°41.4'S, 54°08.7'E, 55 m). Holotype (unique), MNHN 1992-1386.

*Cirrimaxilla formosa* Chen & Shao 1995: 330, fig. 1 (Nanwan, s tip of Taiwan, Ping-tung Co., Hengchon, 120°46'E, 21°57'N, tide pool). Holotype (unique), ASIZP 056729.

VERTEBRAE: 114–115, 112–117, 132 (MVF 114, 115, 132).

DISTRIBUTION: Reunion, Indian Ocean; Taiwan.

#### *Channomuraena vittata* (Richardson 1845)

*Ichthyophis vittatus* Richardson 1845a: no p., pl. 53 (figs. 7–9) (Locality uncertain, brought from China). Holotype (unique), BMNH 1855.10.16.280 (dry).

*Gymnomuraena bennettii* Günther 1870: 135 (Mauritius). Holotype (unique), BMNH 1856.2.24.7 (stuffed).

*Channomuraena cubensis* Poey 1868: 266, pl. 3 (fig. 6) (Cuba). Holotype, MCZ 9191.

VERTEBRAE: 120–126, 118–127, 145–157 (MVF 122, 123, 150).

DISTRIBUTION: Circumtropical.

### Genus *Scuticaria* Jordan & Snyder 1901

*Ichthyophis* Lesson 1828: 397. Type species *Ichthyophis tigrinus* Lesson 1828, by monotypy. Preoccupied by *Ichthyophis* Fitzinger, 1826, Reptilia.

*Muraenoblenna* Kaup, 1856a: 67. Type species *Ichthyophis tigrinus* Lesson 1828, by monotypy. Preoccupied by *Muraenoblenna* Lacepède 1803, Myxini.

*Scuticaria* Jordan & Snyder 1901: 886. Type species *Ichthyophis tigrinus* Lesson 1828, by original designation (also monotypic). Feminine.

#### *Scuticaria okinawae* (Jordan & Snyder 1901)

*Uropterygius okinawae* Jordan & Snyder 1901: 886, fig. 22 (Okinawa I., Ryukyu Is., Japan). Holotype (unique), SU 6482.

*Gymnomuraena brevicauda* Regan 1903: 414, pl. 13 (fig. 1) (Mauritius). Holotype (unique), MHNG 665.54.

*Scuticaria unicolor* Seale 1917: 94 (Society Is.). Holotype, MCZ 9188.

*Uropterygius sealei* Whitley 1932b: 330 (Society Is.). Holotype, MCZ 9188. Unnecessary replacement name for *Scuticaria unicolor* Seale 1917.

VERTEBRAE: 167–169, 168–171, 169–177 (MVF 168, 170, 176).

DISTRIBUTION: Indo-West Pacific.

#### *Scuticaria tigrina* (Lesson 1828)

*Ichthyophis tigrinus* Lesson 1828: 399 (Bora Bora, Society Is.). Lectotype, MNHN B-2454, designated by Böhlke & McCosker 1997: 174.

VERTEBRAE: 159–166, 163–167, 166–174 (MVF 163, 165, 170).

DISTRIBUTION: Indo-West Pacific and Eastern Pacific.

### Genus *Uropterygius* Rüppell 1838

*Uropterygius* Rüppell 1838: 83. Type species *Uropterygius concolor* Rüppell 1838, by monotypy. Masculine.

*Scutica* Jordan & Evermann 1896: 403, 404. Type species *Gymnomuraena nectura* Jordan & Gilbert 1882. Type by original designation (also monotypic). Feminine.

***Uropterygius alboguttatus* Smith 1962**

*Uropterygius alboguttatus* Smith 1962: 427, pl. 60 (fig. E) (Assumption I., Indian Ocean). Holotype, SAIAB 411. VERTEBRAE: 116–124, 117–127, 129–139.

DISTRIBUTION: Indo-West Pacific.

***Uropterygius concolor* Rüppell 1838**

*Uropterygius concolor* Rüppell 1838: 83, pl. 20 (fig. 4) (Massawa, Eritrea, Red Sea). Lectotype, SMF 746, designated by Böhlke 1982: 40.

*Gymnomuraena fusca* Peters 1866: 524 (Ambon I., Molucca Is., Indonesia). Holotype (unique), ZMB 6180.

*Anarchias vermiformis* Smith 1962: 429, pl. 53 (fig. H); fig. 6 (Zanzibar, Indian Ocean). Holotype (unique), SAIAB 319.

VERTEBRAE: 109–111, 111–116, 119–123 (types).

DISTRIBUTION: Indo-West Pacific.

REMARKS: This name has been applied to many unpatterned *Uropterygius* specimens from the Indo-Pacific, but they may not all belong to the same species. More study is needed.

***Uropterygius fasciolatus* (Regan 1909)**

*Gymnomuraena fasciolata* Regan 1909: 438. (Duke of York I., Tokelau Is., Pacific). Holotype (unique), BMNH 1877.2.24.84.

*Uropterygius goslinei* McCosker & Randall 1977: 167, figs. 3c, 5. (Kayangel Atoll, Palau Is., w Pacific). Holotype, CAS 35253.

VERTEBRAE: 114–116, 114–117, 124–127 (holotypes of the two nominal species).

DISTRIBUTION: Western Pacific.

***Uropterygius fuscoguttatus* Schultz 1953**

*Uropterygius fuscoguttatus* Schultz in Schultz et al. 1953: 156, fig. 33 (Lagoon off Amen I., Bikini Atoll., Marshall Is., 30 ft). Holotype, USNM 141680.

VERTEBRAE: 93–105, 98–110, 122–124 (MVF 99, 104, 119).

DISTRIBUTION: Western Pacific.

***Uropterygius genie* Randall & Golani 1995**

*Uropterygius genie* Randall & Golani 1995: 872, figs. 7–9 (Ras Muhammad, Sinai Peninsula, Red Sea). Holotype, HUJ 5863.

VERTEBRAE: 102–105, 111–114, 121–122 (MVF 104, 113, 122).

DISTRIBUTION: Red Sea.

***Uropterygius golanii* McCosker & Smith 1997**

*Uropterygius golanii* McCosker & Smith 1997: 1011, fig. 3 (Strait of Jubal, s end of Sinai Peninsula at Ras Muhammed, Egypt, Red Sea, 0–10 m). Holotype, USNM 312830.

VERTEBRAE: 134–138, 136–141, 145–148 (MVF 136, 139, 147).

DISTRIBUTION: Red Sea.

***Uropterygius inornatus* Gosline 1958**

*Uropterygius inornatus* Gosline 1958: 225, figs. 1e, 2a (Off Waikiki reef, Oahu I., Hawaiian Is., U.S.A., 25–35 ft). Holotype, USNM 175007.

VERTEBRAE: 109–124, 111–126, 116–133 (MVF 116, 117, 124).

DISTRIBUTION: Indo-West Pacific.

***Uropterygius kamar* McCosker & Randall 1977**

*Uropterygius kamar* McCosker & Randall 1977: 164, figs. 3b, 4 (Itsandra, Grande Comore I., Comoro Is., Indian Ocean, 25 m). Holotype, CAS 35251.

VERTEBRAE: 109–118, 120–125, 134–140 (MVF 115, 124, 138).

DISTRIBUTION: Indo-West Pacific.

***Uropterygius macrocephalus* (Bleeker 1864)**

*Gymnomuraena macrocephalus* Bleeker 1864a: 54 (Ambon I., Molucca Is., Indonesia). Holotype (unique), BMNH 1867.11.28.335.

*Gymnomuraena nectura* Jordan & Gilbert 1882b: 356 (Cape San Lucas, Baja California, Mexico). Holotype (unique), USNM 15442.

*Anarchias knighti* Jordan & Starks in Jordan & Seale 1906: 205, fig. 10 (Apia, Upolu I., Western Samoa). Holotype, USNM 51716.

*Uropterygius reidi* Schultz 1943: 32, pl. 5 (Reef of Tau I. at Siulagi Point, American Samoa). Holotype, USNM 116077.

*Uropterygius makatei* Gosline 1958: 227, figs. 1f, 2b (West of the phosphate dock, Makatea, Tuamotu Archipelago). Holotype (unique), USNM 175008.

VERTEBRAE: 84–99, 86–100, 102–119 (MVF 92, 94, 110).

DISTRIBUTION: Indo-West Pacific, eastern Pacific.

REMARKS: The wide range of vertebral counts suggests that more than one species may be involved. Further studies are needed.

***Uropterygius macularius* (Lesueur 1825)**

*Muraenophis macularia* Lesueur 1825: 107, pl. 4 (fig. 1) (Sandy Cay, near Nassau, Great Bahama Bank, Bahamas, 0–20 ft). Neotype, ANSP 106286. designated by Böhlke et al. 1989: 128.

*Leptocephalus juliae* Tommasi 1960: 91, fig. 1 (Off Recife, Brazil, 7°41'S, 34°25'W, sta. 355, 0–91 m). Holotype (unique), Inst. Oceanogr. Univ. Sao Paulo.

*Uropterygius diopus* Böhlke 1967: 91, fig. 1 (Sandy Cay, near Nassau, Great Bahama Bank, Bahamas, 0–20 ft). Holotype, ANSP 106286.

VERTEBRAE: 100–110, 105–115, 117–126 (MVF 106, 110, 121).

DISTRIBUTION: Western Atlantic.

REMARKS: The original type locality for *Muraenophis macularia* was Barbados. The specimen selected for the neotype is the same as the holotype of *Uropterygius diopus*.

***Uropterygius marmoratus* (Lacepède 1803)**

*Gymnomuraena marmorata* Lacepède 1803: 648, 649 (New Britain, Bismarck Archipelago). No types known.

VERTEBRAE: 120–127, 123–127, 131–139 (MVF 124, 126, 135).

DISTRIBUTION: Indo-West Pacific.

REMARKS: Placed in *Scuticaria* by Loh et al. 2008.

***Uropterygius micropterus* (Bleeker 1852)**

*Muraena micropterus* Bleeker 1852b: 298 (Wahai, n Ceram, Indonesia). Lectotype, BMNH 1867.11.28.326, designated by Böhlke & Smith 2002: 162.

*Anarchias reticulatus* Herre 1923: 230, pl. 9 (fig. 3) (Sitanki, Philippines). Syntypes, BSMP (3), presumed destroyed.

*Uropterygius tinkhami* Fowler 1945: 59, figs. 1–2 (Saipan I., Mariana Is., w Pacific). Holotype, ANSP 71585.

VERTEBRAE: 102–109, 104–110, 113–119 (MVF 106, 108, 117).

DISTRIBUTION: Indo-West Pacific.

***Uropterygius nagoensis* Hatooka 1984**

*Uropterygius nagoensis* Hatooka 1984: 20, figs. 1–4 (Nago fish market, Okinawa I., Ryukyu Is.). Holotype (unique), FAKU 51431.

VERTEBRAE: 118, 124–125, 139–140 (MVF 118, 124, 140).

DISTRIBUTION: Indo-West Pacific.

***Uropterygius oligospondylus* Chen, Randall & Loh 2008**

*Uropterygius oligospondylus* Chen, Randall & Loh in Loh, Chen, Randall & Chen 2008: 141, figs. 1H, 3, 4 (Taiwan). Holotype, TOU-AE 1862.



VERTEBRAE: 79–81, 83–85, 100–103 (types).

DISTRIBUTION: Western Pacific.

***Uropterygius polyspilus* (Regan 1909)**

*Gymnomuraena polyspila* Regan 1909: 438 (Tahiti, Society Is.). Holotype (unique), BMNH 1909.12.14.23.

VERTEBRAE: 124–127, 124–128, 130–136 (MVF 125, 126, 132).

DISTRIBUTION: Indo-West Pacific.

***Uropterygius polystictus* Myers & Wade 1941**

*Uropterygius polystictus* Myers & Wade 1941: 85, pl. 15 (S. Seymour I., Galápagos Is.). Holotype, LACM 23345 [ex AHF 16].

VERTEBRAE: 116, 117, 124 (holotype).

DISTRIBUTION: Eastern Pacific.

***Uropterygius supraforatus* (Regan 1909)**

*Gymnomuraena supraforata* Regan 1909: 439 (Savai'i [Savay] I., Western Samoa). Holotype (unique), BMNH 1871.9.1.83.

*Uropterygius dentatus* Schultz in Schultz et al. 1953: 152, fig. 32 (N. ocean reef, Johnston I., Pacific). Holotype (unique), USNM 141637.

VERTEBRAE: 100–116, 104–122, 117–136 (MVF 105, 109, 125).

DISTRIBUTION: Indo-West Pacific.

REMARKS: The Hawaiian population, described as *U. dentatus*, has a much higher vertebral count (116, 122, 136 in the holotype of *dentatus*) than those from elsewhere in the Indo-Pacific (101, 105, 122 in the holotype of *supraforatus*). *Uropterygius dentatus* might be a valid species.

***Uropterygius versutus* Bussing 1991**

*Uropterygius versutus* Bussing 1991: 97, figs. 1–3 (Mainland Pacific Costa Rica, eastern side of islet, 1 kilometer east of Isla Alcatraz, Islas Tortugas, 9°47'02"N, 84°53'32"W, depth 1–4 m). Holotype, LACM 32517–52.

VERTEBRAE: 114–124, 119–128, 131–138 (MVF 118, 122, 134).

DISTRIBUTION: Eastern Pacific.

***Uropterygius wheeleri* Blache 1967**

*Uropterygius wheeleri* Blache 1967b: 1716, figs. 6–9 (Cape Verde Is., e Atlantic). Holotype, MB T140a (lost in fire, 1978).

VERTEBRAE: —, —, 127–135.

DISTRIBUTION: Eastern Atlantic.

***Uropterygius xanthopterus* Bleeker 1859**

*Uropterygius xanthopterus* Bleeker 1859: 350 (Patjitan, Java, Indonesia). Holotype (unique), BMNH 1867.11.28.271.

VERTEBRAE: 104–112, 108–117, 118–126.

DISTRIBUTION: Indo-West Pacific.

***Uropterygius xenodontus* McCosker & Smith 1997**

*Uropterygius xenodontus* McCosker & Smith 1997: 1006, figs. 1–2 (Chesterfield Bank, 19°53.5'S, 158°28.2'E, se side of lagoon, Coral Sea, 6–9 m). Holotype, BPBM 33558.

VERTEBRAE: 143–146, 144–149, 154–157 (MVF 145, 147, 155).

DISTRIBUTION: Western Pacific.

**GENERA OF FAMILY MURAENIDAE**

*Aemasia* Jordan & Snyder 1901 = *Enchelycore* Kaup 1856

*Ahynnodontophis* Fowler 1912 = *Gymnothorax* Bloch 1795

*Anarchias* Jordan & Starks 1906 = *Anarchias* Jordan & Starks 1906

*Arndha* Deraniyagala 1931 = *Gymnomuraena* Lacepède 1803  
*Channomuraena* Richardson 1848 = *Channomuraena* Richardson 1848  
*Chasmenchelys* Fowler 1944 = *Gymnothorax* Bloch 1795  
*Cirrimaxilla* Chen & Shao 1995 = *Channomuraena* Richardson 1848  
*Diaphenchelys* McCosker & Randall 2007 = *Diaphenchelys* McCosker & Randall 2007  
*Echidna* Forster 1788 = *Echidna* Forster 1788  
*Enchelycore* Kaup 1856 = *Enchelycore* Kaup 1856  
*Enchelynassa* Kaup 1855 = *Enchelynassa* Kaup 1855  
*Eurymyctera* Kaup 1856 = *Enchelycore* Kaup 1856  
*Evenchelys* Jordan & Evermann 1902 = *Strophidon* McClelland 1844  
*Fimbrinares* Whitley 1948 = *Enchelycore* Kaup 1856  
*Gymnomuraena* Lacepède 1803 = *Gymnomuraena* Lacepède 1803  
*Gymnopsis* Rafinesque 1815 = *Gymnomuraena* Lacepède 1803  
*Gymnothorax* Bloch 1795 = *Gymnothorax* Bloch 1795  
*Heteromyrus* Pietschmann 1935 = *Gymnothorax* Bloch 1795  
*Ichthyophis* Lesson 1828 (Preoccupied) = *Scuticaria* Jordan & Snyder 1901  
*Leihala* Jordan 1925 = *Echidna* Forster 1788  
*Limomuraena* Kaup 1856 = *Muraena* Linnaeus 1758  
*Lycodontis* Jordan & Evermann 1896 = *Gymnothorax* Bloch 1795  
*Megaderus* Rafinesque 1815 = *Echidna* Forster 1788  
*Molariii* Richardson 1848 = *Echidna* Forster 1788, if considered available.  
*Monopenchelys* Böhlke & McCosker 1982 = *Monopenchelys* Böhlke & McCosker 1982  
*Muraena* Linnaeus 1758 = *Muraena* Linnaeus 1758  
*Muraenoblenna* Kaup 1856 = *Scuticaria* Jordan & Snyder 1901  
*Muraenophis* Lacepède 1803 = *Muraena* Linnaeus 1758  
*Murenophis* Cuvier 1797 = *Muraena* Linnaeus 1758  
*Neomuraena* Girard 1858 = *Gymnothorax* Bloch 1795  
*Nettastomops* Steindachner 1906 = *Rhinomuraena* Garman 1888  
*Notorabula* Whitley 1934 = *Gymnothorax* Bloch 1795  
*Poecilophis* Kaup 1856 = *Echidna* Forster 1788  
*Polyuranodon* Kaup 1856 = *Gymnothorax* Bloch 1795  
*Priodonophis* Kaup 1859 = *Gymnothorax* Bloch 1795  
*Pseudechidna* Bleeker 1863 = *Pseudechidna* Bleeker 1863  
*Pseudomuraena* Johnson 1862 = *Gymnothorax* Bloch 1795  
*Rabula* Jordan & Davis 1891 = *Gymnothorax* Bloch 1795  
*Rhabdura* Ogilby 1907 = *Strophidon* McClelland 1844  
*Rhinechidna* Barbour 1908 = *Enchelycore* Kaup 1856  
*Rhinomuraena* Garman 1888 = *Rhinomuraena* Garman 1888

*Scutica* Jordan & Evermann 1896 = *Uropterygius* Rüppell 1838  
*Scuticaria* Jordan & Snyder 1901 = *Scuticaria* Jordan & Snyder 1901  
*Serranguilla* Whitley & Phillipps 1939 = *Gymnothorax* Bloch 1795  
*Siderea* Kaup 1856 = *Gymnothorax* Bloch 1795  
*Strophidon* McClelland 1844 = *Strophidon* McClelland 1844  
*Taeniophis* Kaup 1859 = *Gymnothorax* Bloch 1795  
*Thaerodontis* McClelland 1844 = *Gymnothorax* Bloch 1795  
*Thyrsoidea* Kaup 1856 = *Gymnothorax* Bloch 1795  
*Uropterygius* Rüppell 1838 = *Uropterygius* Rüppell 1838  
*Verdithorax* Whitley 1931 = *Gymnothorax* Bloch 1795

#### UNAVAILABLE GENERIC NAMES

*Chamomuraena* Kaup in Duméril 1856: 201. Nomen Nudum.  
*Enchelycotte* Kaup in Duméril 1856: 200. Nomen Nudum.  
*Limmamuraena* Kaup in Duméril 1856: 200. Nomen Nudum.  
*Sidera* Kaup in Duméril 1856: 200. Nomen Nudum.

#### SPECIES OF FAMILY MURAENIDAE

*acutirostris*, *Muraena* Abbott 1860 = *Gymnothorax undulatus* (Lacepède 1803)  
*acutis*, *Muraena* Seale 1917 = *Echidna nocturna* (Cope 1872)  
*acutus*, *Uropterygius* Parr 1930 = *Monopenchelys acuta* (Parr 1930)  
*afer*, *Gymnothorax* Bloch 1795 = *Gymnothorax afer* Bloch 1795  
*africana*, *Muraena* Shaw 1803 = *Gymnothorax afer* Bloch 1795  
*agassizi*, *Muraena* Bleeker 1855 = *Gymnothorax undulatus* (Lacepède 1803)  
*albigutta*, *Muraena* Hildebrand 1946 = *Muraena argus* (Steindachner 1870)  
*albimarginata*, *Muraena* Temminck & Schlegel 1846 = *Gymnothorax albimarginatus* (Temminck & Schlegel 1846)  
*albimentis*, *Lycodontis* Evermann & Marsh 1900 = *Gymnothorax moringa* (Cuvier 1829)  
*alboguttatus*, *Uropterygius* Smith 1962 = *Uropterygius alboguttatus* Smith 1962  
*albomaculatus*, *Gymnothorax* Bliss 1883 = *Gymnothorax elegans* Bliss 1883  
*albomarginata*, *Muraena* (*Muraena*) Pfaff 1933 = *Muraena melanotis* (Kaup 1859)  
*allardicei*, *Anarchias* Jordan & Starks 1906 = *Anarchias allardicei* Jordan & Starks 1906  
*alusis*, *Muraena* Bleeker 1856 = *Echidna catenata* (Bloch 1795)  
*amblyodon*, *Muraena* Bleeker 1856 = *Echidna amblyodon* (Bleeker 1856)  
*ambonensis*, *Rhinomuraena* Barbour 1908 = *Rhinomuraena quaesita* Garman 1888  
*anatina*, *Muraena* Lowe 1838 = *Enchelycore anatina* (Lowe 1838)  
*anguina*, *Muraena* Gronow 1854 = *Enchelycore nigricans* (Bonnaterre 1788)  
*angusticauda*, *Muraena* (*Priodonophis*) Weber & de Beaufort 1916 = *Gymnothorax angusticauda* (Weber & de Beaufort 1916)

*angusticeps*, *Priodonophis* Hildebrand & Barton 1949 = *Gymnothorax angusticeps* (Hildebrand & Barton 1949)  
*annasona*, *Gymnothorax flavimarginatus* Whitley 1937 = *Gymnothorax annasona* Whitley 1937  
*annulatus*, *Gymnothorax* Smith & Böhlke 1997 = *Gymnothorax annulatus* Smith & Böhlke 1997  
*aquaedulcis*, *Muraena* Cope 1872 = *Muraena lentiginosa* Jenyns 1842  
*arae*, *Gymnothorax* Borodin 1928 = *Echidna nocturna* (Cope 1872)  
*arenata*, *Thyrsoidea* Kaup 1856 = *Gymnothorax thyrsoideus* (Richardson 1845)  
*argus*, *Gymnothorax (Limamuraena)* Steindachner 1870 = *Muraena argus* (Steindachner 1870)  
*aterrima*, *Thyrsoidea* Kaup 1859 = *Gymnothorax funebris* Ranzani 1839  
*atlantica*, *Thyrsoidea* Johnson 1862 = *Muraena augusti* (Kaup 1856)  
*atolli*, *Heteromyrus* Pietschmann 1935 = *Gymnothorax atolli* (Pietschmann 1935)  
*atomaria*, *Muraena* Solander 1848 = *Gymnothorax pictus* (Ahl 1789)  
*augusti*, *Thyrsoidea* Kaup 1856 = *Muraena augusti* (Kaup 1856)  
*auloptera*, *Muraena* De Filippi 1853 = *Echidna nebulosa* (Ahl 1789)  
*aurea*, *Muraena* Mowbray 1931 = *Gymnothorax miliaris* (Kaup 1856)  
*australiae*, *Muraena helena* Richardson 1848 = *Muraena helena* Linnaeus 1758  
*australicola*, *Gymnothorax* Lavenberg 1992 = *Gymnothorax australicola* Lavenberg 1992  
*austrinus*, *Gymnothorax* Böhlke & McCosker 2001 = *Gymnothorax austrinus* Böhlke & McCosker 2001  
*bacalladoi*, *Gymnothorax* Böhlke & Brito 1987 = *Gymnothorax bacalladoi* Böhlke & Brito 1987  
*baranesi*, *Gymnothorax* Smith, Brokovich & Einbinder 2008 = *Gymnothorax baranesi* Smith, Brokovich & Einbinder, 2008.  
*barbatula*, *Nettastomops* Steindachner 1906 = *Rhinomuraena quaesita* Garman 1888  
*bathophilus*, *Gymnothorax* Randall & McCosker 1975 = *Gymnothorax bathophilus* Randall & McCosker 1975  
*batuensis*, *Muraena* Bleeker 1856 = *Gymnothorax flavimarginatus* (Rüppell 1830)  
*bauchotae*, *Channomuraena* Saldanha & Quéro 1994 = *Channomuraena bauchotae* Saldanha & Quéro 1994  
*bayeri*, *Gymnothorax* Schultz 1953 = *Enchelycore bayeri* (Schultz 1953)  
*bennettii*, *Gymnomuraena* Günther 1870 = *Channomuraena vittata* (Richardson 1845)  
*berndti*, *Gymnothorax* Snyder 1904 = *Gymnothorax berndti* Snyder 1904  
*bettencourti*, *Muraena* Osório 1911 = *Muraena augusti* (Kaup 1856)  
*bikiniensis*, *Gymnothorax* Schultz 1953 = *Enchelycore bikiniensis* (Schultz 1953)  
*bilineata*, *Muraena* Rüppell 1838 = *Gymnothorax griseus* (Lacepède 1803)  
*bleekeri*, *Enchelynassa* Kaup 1855 = *Enchelynassa canina* (Quoy & Gaimard 1824)  
*blochii*, *Muraena* Bleeker 1853 = *Gymnothorax undulatus* (Lacepède 1803)  
*borneensis*, *Gymnothorax* Bleeker 1863 = *Gymnothorax tile* (Hamilton 1822)  
*boschii*, *Muraena* Bleeker 1853 = *Echidna nebulosa* (Ahl 1789)  
*breedeni*, *Gymnothorax* McCosker & Randall 1977 = *Gymnothorax breedeni* McCosker & Randall 1977  
*brevicauda*, *Gymnomuraena* Regan 1903 = *Scuticaria okinawae* (Jordan & Snyder 1901)  
*brummeri*, *Muraena* Bleeker 1858 = *Pseudechidna brummeri* (Bleeker 1858)  
*brunneus*, *Gymnothorax* Herre 1923 (Preoccupied) = *Gymnothorax herrei* Beebe & Tee-Van 1933

*brunneus*, *Gymnothorax* Nichols 1920 = *Enchelycore nigricans* (Bonnaterre 1788)  
*bullata*, *Muraena* Richardson 1848 = *Gymnothorax fimbriatus* (Bennett 1832)  
*buroensis*, *Muraena* Bleeker 1857 = *Gymnothorax buroensis* (Bleeker 1857)  
*callorhyncha*, *Muraena* Günther 1870 = *Gymnothorax prasinus* (Richardson 1848)  
*cancellata*, *Muraena* Richardson 1848 = *Gymnothorax undulatus* (Lacepède 1803)  
*canina*, *Muraena* Quoy & Gaimard 1824 = *Enchelynassa canina* (Quoy & Gaimard 1824)  
*cantonensis*, *Uropterygius* Schultz 1943 = *Anarchias cantonensis* (Schultz 1943)  
*caramuru*, *Murenophis* Castelnau 1855 = *Gymnothorax moringa* (Cuvier 1829)  
*carcinognathus*, *Gymnothorax* Fowler 1912 = *Gymnothorax vicinus* (Castelnau 1855)  
*carychroa*, *Enchelycore* Böhlke & Böhlke 1976 = *Enchelycore carychroa* Böhlke & Böhlke 1976  
*castanea*, *Sidera* Jordan & Gilbert 1883 = *Gymnothorax castaneus* (Jordan & Gilbert 1883)  
*castlei*, *Gymnothorax* Böhlke & Randall 1999 = *Gymnothorax castlei* Böhlke & Randall 1999  
*catenatus*, *Gymnothorax* Bloch 1795 = *Echidna catenata* (Bloch 1795)  
*catenula*, *Muraenophis* Lacepède 1803 = *Echidna catenata* (Bloch 1795)  
*cephalospilus*, *Gymnothorax* Böhlke & McCosker 2001 = *Gymnothorax cephalospilus* Böhlke & McCosker 2001  
*ceramensis*, *Muraena* Bleeker 1852 = *Gymnothorax richardsonii* (Bleeker 1852)  
*cerinonigra*, *Muraena* Richardson 1846 = *Echidna nebulosa* (Ahl 1789)  
*chalazius*, *Gymnothorax* Waite 1904 = *Gymnothorax eurostus* (Abbott 1861)  
*chilensis*, *Muraena* Günther 1872 = *Gymnothorax porphyreus* (Guichenot 1848)  
*chilospilus*, *Gymnothorax* Bleeker 1864 = *Gymnothorax chilospilus* Bleeker 1864  
*chionostigma*, *Echidna* Fowler 1912 = *Echidna nocturna* (Cope 1872)  
*chlamydatus*, *Gymnothorax* Snyder 1908 = *Gymnothorax chlamydatus* Snyder 1908  
*chlevastes*, *Sidera* Jordan & Gilbert 1883 = *Gymnothorax rueppellii* (McClelland 1844)  
*chlorostigma*, *Thyrsoidea* Kaup 1856 = *Gymnothorax meleagris* (Shaw 1795)  
*chrysops*, *Muraena* Kaup 1856 = *Gymnothorax richardsonii* (Bleeker 1852)  
*cinerascens*, *Muraena* Rüppell 1830 = *Gymnothorax hepaticus* (Rüppell 1830)  
*clepsydra*, *Muraena* Gilbert 1898 = *Muraena clepsydra* Gilbert 1898  
*cocosa*, *Echidna* Garman 1899 = *Echidna nebulosa* (Ahl 1789)  
*concolor*, *Thyrsoidea* Abbott 1860 = *Gymnothorax moringa* (Cuvier 1829)  
*concolor*, *Uropterygius* Rüppell 1838 = *Uropterygius concolor* Rüppell 1838  
*congeroides*, *Muraena* Bleeker 1860 = *Enchelycore schismatorhynchus* (Bleeker 1853)  
*conspersus*, *Gymnothorax* Poey 1867 = *Gymnothorax conspersus* Poey 1867  
*corallina*, *Muraena* Klunzinger 1871 = *Gymnothorax buroensis* (Bleeker 1857)  
*cormura*, *Thyrsoidea* Kaup 1859 = *Gymnothorax vicinus* (Castelnau 1855)  
*cribroris*, *Gymnothorax* Whitley 1932 = *Gymnothorax cribroris* Whitley 1932  
*cristini*, *Muraenophis* Risso 1810 = *Gymnothorax unicolor* (Delaroche 1809)  
*crudelis*, *Eurymyctera* Kaup 1856 = *Enchelycore schismatorhynchus* (Bleeker 1853)



*cubensis*, *Channomuraena* Poey 1868 = *Channomuraena vittata* (Richardson 1845)  
*curvilineata*, *Murenophis* Castelnau 1855 = *Gymnothorax moringa* (Cuvier 1829)  
*cyanopunctatus*, *Gymnothorax* Howell Rivero 1932 = *Gymnothorax vicinus* (Castelnau 1855)  
*davidsmithi*, *Gymnothorax* McCosker & Randall, 2008 = *Gymnothorax davidsmithi* McCosker & Randall, 2008  
*davisi*, *Rabula* Fowler 1912 = *Gymnothorax mordax* (Ayres 1859)  
*delicatulus*, *Poecilophis* Kaup 1856 = *Echidna delicatula* (Kaup 1856)  
*dentatus*, *Uropterygius* Schultz 1953 = ?*Uropterygius supraforatus* (Regan 1909)  
*dentex*, *Gymnothorax* de Buen 1961 = *Gymnothorax eurostus* (Abbott 1861)  
*detactus*, *Gymnothorax* Bryan & Herre 1903: 126 = ?*Gymnothorax chilospilus* Bleeker, 1865  
*diopus*, *Uropterygius* Böhlke 1967 = *Uropterygius macularius* (Lesueur 1825)  
*dipledon*, *Muraena* Peters 1855 = *Gymnothorax richardsonii* (Bleeker 1852)  
*dizona*, *Muraena* Bleeker 1861 = *Echidna polyzona* (Richardson 1845)  
*doliata*, *Gymnomuraena* Lacepède 1803 = *Gymnomuraena zebra* (Shaw 1797)  
*dorsalis*, *Gymnothorax* Seale 1917 = *Gymnothorax dorsalis* Seale 1917  
*dovii*, *Muraena* Günther 1870 = *Gymnothorax dovii* (Günther 1870)  
*echidna*, *Muraena* Gmelin 1789 = *Echidna nebulosa* (Ahl 1789)  
*echidna*, *Gymnothorax* Forster 1801 = *Echidna nebulosa* (Ahl 1789)  
*efatensis*, *Gymnothorax* Herre 1935 = *Echidna delicatula* (Kaup 1856)  
*elaborata*, *Muraena* Poey 1860 = *Gymnothorax miliaris* (Kaup 1856)  
*elegans*, *Gymnothorax* Bliss 1883 = *Gymnothorax elegans* Bliss 1883  
*elegans*, *Gymnothorax* Seale 1917 = *Gymnothorax elegans* Bliss 1883  
*elegantissima*, *Muraena* Kaup 1856 = *Gymnothorax pictus* (Ahl 1789)  
*emmae*, *Gymnothorax* Prokofiev 2010 = *Gymnothorax emmae* Prokofiev 2010  
*enigmaticus*, *Gymnothorax* McCosker & Randall 1982 = *Gymnothorax enigmaticus* McCosker & Randall 1982  
*equatorialis*, *Priodonophis* Hildebrand 1946 = *Gymnothorax equatorialis* (Hildebrand 1946)  
*ercodes*, *Gymnothorax* Jenkins 1903 = *Gymnothorax eurostus* (Abbott 1861)  
*erebus*, *Muraena* Poey 1861 = *Gymnothorax vicinus* (Castelnau 1855)  
*eritima*, *Rhinamuraena* Jordan & Seale 1906 = *Enchelycore schismatorhynchus* (Bleeker 1853)  
*erythroptera*, *Muraena* Solander 1848 = *Gymnothorax pictus* (Ahl 1879)  
*euptera*, *Muraena* Günther 1870 = *Gymnothorax nubilus* (Richardson 1848)  
*eurosta*, *Thyrsoidea* Abbott 1860 = *Gymnothorax eurostus* (Abbott 1860)  
*eurygnathos*, *Gymnothorax* Böhlke 2001 = *Gymnothorax eurygnathos* Böhlke 2001  
*euryrhina*, *Enchelycore* Kaup 1856 = *Enchelycore nigricans* (Bonnaterre 1788)  
*euryurus*, *Leptocephalus* Lea 1913 = *Anarchias longicauda* (Peters, 1876)  
*exulatus*, *Anarchias* Reece, Smith & Holm 2010 = *Anarchias exulatus* Reece, Smith & Holm 2010  
*fasciata*, *Gymnomuraena* Kaup 1856 = *Gymnomuraena zebra* (Shaw 1797)  
*fascigula*, *Muraena* Peters 1855 = *Echidna polyzona* (Richardson 1845)  
*fasciolata*, *Gymnomuraena* Regan 1909 = *Uropterygius fasciolatus* (Regan 1909)

*favagineus*, *Gymnothorax* Bloch & Schneider 1801 = *Gymnothorax favagineus* Bloch & Schneider 1801  
*fijiensis*, *Uropterygius* Fowler & Bean 1923 = *Gymnothorax polyuranodon* (Bleeker 1853)  
*fimbriata*, *Muraena* Bennett 1832 = *Gymnothorax fimbriatus* (Bennett 1832)  
*flavimarginata*, *Muraena* Rüppell 1830 = *Gymnothorax flavimarginatus* (Rüppell 1830)  
*flavimarginata*, *Muraena* Kaup 1856 (Preoccupied) = *Gymnothorax elegans* Bliss 1883  
*flavocula*, *Siderea* Böhlke & Randall 1996 = *Gymnothorax flavoculus* (Böhlke & Randall 1996)  
*flavofasciata*, *Echidna* Poey 1867 = *Echidna catenata* (Bloch 1795)  
*flavopicta*, *Thyrsoidea* Kaup 1856 = *Gymnothorax miliaris* (Kaup 1856)  
*flavoscriptus*, *Gymnothorax* Poey 1876 = *Gymnothorax moringa* (Cuvier 1829)  
*florisiana*, *Muraena* Bleeker 1854 = *Gymnothorax richardsonii* (Bleeker 1852)  
*formosa*, *Cirrimaxilla* Chen & Shao 1995 = *Channomuraena bauchotae* Saldanha & Quero 1994  
*formosus*, *Gymnothorax* Bleeker 1864 = *Gymnothorax formosus* Bleeker 1864  
*forsstromi*, *Leptocephalus* Strömman 1896 = *Gymnothorax vicinus* (Castelnau 1855)  
*forsteri*, *Echidna* Walbaum 1792 = *Echidna nebulosa* (Ahl 1789)  
*fuliginosus*, *Leptocephalus* Strömman 1896 = *Gymnothorax miliaris* (Kaup 1856)  
*fulva*, *Muraenophis* Risso 1810 = *Muraena helena* Linnaeus 1758  
*funnebris*, *Gymnothorax* Ranzani 1839 = *Gymnothorax funnebris* Ranzani 1839  
*fusca*, *Gymnomuraena* Peters 1866 = *Uropterygius concolor* Rüppell 1838  
*fuscoguttatus*, *Uropterygius* Schultz 1953 = *Uropterygius fuscoguttatus* Schultz 1953  
*fuscomaculata*, *Rabula* Schultz 1953 = *Gymnothorax fuscomaculatus* (Schultz 1953)  
*fuscomaculata*, *Echidna* Poey 1867 = *Echidna catenata* (Bloch 1795)  
*fuscus*, *Anarchias* Smith 1962 = *Anarchias allardicei* Jordan & Starks 1906  
*galapagensis*, *Uropterygius* Seale 1940 = *Anarchias galapagensis* (Seale 1940)  
*galetae*, *Gymnothorax* Rubinoff 1966 = *Muraena robusta* Osório 1911  
*genie*, *Uropterygius* Randall & Golani 1995 = *Uropterygius genie* Randall & Golani 1995  
*geometrica*, *Muraena* Rüppell 1830 = *Gymnothorax griseus* (Lacepède 1803)  
*gilberti*, *Gymnothorax* Tanaka 1908 = *Gymnothorax eurostus* (Abbott 1861)  
*golani*, *Uropterygius* McCosker & Smith 1997 = *Uropterygius golani* McCosker & Smith 1997  
*goldsboroughi*, *Gymnothorax* Jordan & Evermann 1903 = *Gymnothorax elegans* Bliss 1883  
*goslinei*, *Uropterygius* McCosker & Randall 1977 = *Uropterygius fasciolatus* (Regan 1909)  
*gracilicauda*, *Gymnothorax* Jenkins 1903 = *Gymnothorax gracilicauda* Jenkins 1903  
*gracilis*, *Muraena* Richardson 1848 = *Gymnothorax tile* (Hamilton 1822)  
*grandimaculis*, *Muraena* Regan 1903 = *Gymnothorax miliaris* (Kaup 1856)  
*grassi*, *Uropterygius* Roule 1916 = *Anarchias longicauda* (Peters, 1876)  
*griffini*, *Gymnothorax* Whitley & Phillipps 1939 = *Gymnothorax porphyreus* (Guichenot 1848)  
*grisea*, *Muraenophis* Lacepède 1803 = *Gymnothorax griseus* (Lacepède 1803)  
*guarapariensis*, *Lycodontis* Pinto 1975 = *Gymnothorax vicinus* (Castelnau 1855)  
*guttata*, *Muraena* Risso 1827 (Preoccupied) = *Muraena helena* Linnaeus 1758

*guttata*, *Muraena* Solander and Richardson, 1848 (Preoccupied) = *Muraena augusti* (Kaup, 1856)  
*hansi*, *Gymnothorax* Heemstra, 2004 = *Gymnothorax hansi* Heemstra 2004  
*helena*, *Muraena* Linnaeus 1758 = *Muraena helena* Linnaeus 1758  
*hemprichii*, *Muraena* Klunzinger 1871 = *Enchelycore schismatorhynchus* (Bleeker 1853)  
*hepatica*, *Muraena* Rüppell 1830 = *Gymnothorax hepaticus* (Rüppell 1830)  
*herrei*, *Gymnothorax* Beebe & Tee-Van 1933 = *Gymnothorax herrei* Beebe & Tee-Van 1933  
*hilonis*, *Gymnothorax* Jordan & Evermann 1903 = *Gymnothorax pictus* (Ahl 1789)  
*hubbsi*, *Gymnothorax* Böhlke & Böhlke 1977 = *Gymnothorax hubbsi* Böhlke & Böhlke 1977  
*indong*, *Gymnothorax* Seale 1910 = *Gymnothorax zonipectis* Seale 1906  
*infernalis*, *Muraena* Poey 1861 = *Gymnothorax funebris* Ranzani 1839  
*inornatus*, *Uropterygius* Gosline 1958 = *Uropterygius inornatus* Gosline 1958  
*insignis*, *Gymnothorax* Seale 1917 = *Gymnothorax nudivomer* (Günther 1867)  
*insularum*, *Muraena* Jordan & Davis 1891 = *Muraena lentiginosa* Jenyns 1842  
*interrupta*, *Muraena* Kaup 1856 = *Gymnothorax rueppellii* (McClelland 1844)  
*intesi*, *Lycodontis* Fourmanoir & Rivaton 1979 = *Gymnothorax intesi* (Fourmanoir & Rivaton 1979)  
*irregularis*, *Thyrsoidea* Kaup 1856 = *Gymnothorax miliaris* (Kaup 1856)  
*isingleenoides*, *Muraena* Bleeker 1853 = *Gymnothorax fimbriatus* (Bennett 1832)  
*isingteena*, *Muraena* Richardson 1845 = *Gymnothorax isingteena* (Richardson 1845)  
*jacksoniensis*, *Gymnothorax* Bleeker 1863 = *Gymnothorax prasinus* (Richardson 1848)  
*januarius*, *Gymnothorax ocellatus* Jordan & Davis 1891 = *Gymnothorax ocellatus* Agassiz 1831  
*javanica*, *Muraena* Bleeker 1859 = *Gymnothorax javanicus* (Bleeker 1859)  
*johnsoni*, *Lycodontis* Smith 1962 = *Gymnothorax johnsoni* (Smith 1962)  
*jordani*, *Lycodontis* Evermann & Marsh 1899 = *Gymnothorax ocellatus* Agassiz 1831  
*juliae*, *Leptocephalus* Tommasi 1960 = *Uropterygius macularius* (Lesueur 1825)  
*kailuae*, *Muraena* Jordan & Evermann 1903 = *Enchelycore pardalis* (Temminck & Schlegel 1846)  
*kamar*, *Uropterygius* McCosker & Randall 1977 = *Uropterygius kamar* McCosker & Randall 1977  
*kamara*, *Enchelycore* Böhlke & Böhlke 1980 = *Enchelycore kamara* Böhlke & Böhlke 1980  
*kauila*, *Muraena* Jenkins 1903 = *Enchelycore pardalis* (Temminck & Schlegel 1846)  
*kaupii*, *Thyrsoidea* Abbott 1860 = *Gymnothorax undulatus* (Lacepède 1803)  
*kidako*, *Muraena* Temminck & Schlegel 1846 = *Gymnothorax kidako* (Temminck & Schlegel, 1846)  
*kishinouyei*, *Echidna* Jordan & Snyder 1901 = *Gymnothorax thyrsoideus* (Richardson 1845)  
*knighti*, *Anarchias* Jordan & Starks 1906 = *Uropterygius macrocephalus* (Bleeker 1864)  
*kolpos*, *Gymnothorax* Böhlke & Böhlke 1980 = *Gymnothorax kolpos* Böhlke & Böhlke 1980  
*kontodontos*, *Gymnothorax* Böhlke 2000 = *Gymnothorax kontodontos* Böhlke 2000  
*kowanensis*, *Gymnothorax pictus* Aoyagi 1943 = *Gymnothorax pictus* (Ahl 1789)  
*krulli*, *Muraena* Hector 1877 = *Gymnothorax prasinus* (Richardson 1848)  
*kuhlii*, *Polyuranodon* Kaup 1856 = *Gymnothorax polyuranodon* (Bleeker 1853)  
*lampra*, *Muraena* Jenkins 1903 = *Enchelycore pardalis* (Temminck & Schlegel 1846)

*laysana*, *Muraena* Steindachner 1900 = *Gymnothorax eurostus* (Abbott 1861)  
*lecomtei*, *Poecilophis* Kaup 1856 = *Echidna peli* (Kaup 1856)  
*leecote*, *Gymnothorax* Scott 1965 = *Gymnothorax prasinus* (Richardson 1848)  
*leihala*, *Echidna* Jenkins 1903 = *Echidna polyzona* (Richardson 1845)  
*lemayi*, *Lycodontis* Smith 1949 = *Gymnothorax flavimarginatus* (Rüppell 1830)  
*lentiginosa*, *Muraena* Jenyns 1842 = *Muraena lentiginosa* Jenyns 1842  
*leucacme*, *Gymnothorax* Jenkins 1903 = *Gymnothorax rueppellii* (McClelland 1844)  
*leucostictus*, *Gymnothorax* Jenkins 1903 = *Gymnothorax meleagris* (Shaw 1785)  
*leucostigma*, *Gymnothorax* Jordan & Richardson 1909 = *Gymnothorax prionodon* Ogilby 1895  
*leucotaenia*, *Echidna* Schultz 1943 = *Echidna leucotaenia* Schultz 1943  
*leucurus*, *Uropterygius* Snyder 1904 = *Anarchias leucurus* (Snyder 1904)  
*lichenosa*, *Aemasia* Jordan & Snyder 1901 = *Enchelycore lichenosa* (Jordan & Snyder 1901)  
*lineopinnis*, *Muraena* Richardson 1848 = *Gymnothorax funebris* Ranzani 1839  
*lita*, *Muraena* Richardson 1848 = *Gymnothorax pictus* (Ahl 1789)  
*literata*, *Lycodontis* McClelland 1844 = *Gymnothorax tile* (Hamilton 1822)  
*longicauda*, *Muraena* Peters 1877 = *Anarchias longicauda* (Peters 1877)  
*longicaudata*, *Lycodontis* McClelland 1844 = *Strophidon sathete* (Hamilton 1822)  
*longinquus*, *Lycodontis* Whitley 1948 = *Gymnothorax longinquus* (Whitley 1948)  
*longissima*, *Thyrsoidea* Kaup 1856 = *Strophidon sathete* (Hamilton 1822)  
*macrocephalus*, *Gymnomuraena* Bleeker 1864 = *Uropterygius macrocephalus* (Bleeker 1864)  
*macrurus*, *Muraena* Bleeker 1854 = *Strophidon sathete* (Hamilton 1822)  
*macularia*, *Muraenophis* Lesueur 1825 = *Uropterygius macularius* (Lesueur 1825)  
*maculata*, *Strophidon* McClelland 1844 = *Gymnothorax tile* (Hamilton 1822)  
*maculipinnis*, *Thyrsoidea* Kaup 1856 = *Gymnothorax afer* Bloch 1795  
*maderensis*, *Pseudomuraena* Johnson 1862 = *Gymnothorax maderensis* (Johnson 1862)  
*makassariensis*, *Gymnothorax* Bleeker 1863 = *Gymnothorax pseudothyrosideus* (Bleeker 1852)  
*makatei*, *Uropterygius* Gosline 1958 = *Uropterygius macrocephalus* (Bleeker 1864)  
*maldiviensis*, *Anarchias* Klauswitz 1964 = *Anarchias allardicei* Jordan and Starks, 1906  
*mareei*, *Gymnothorax* Poll 1953 = *Gymnothorax mareei* Poll 1953  
*margaritophorus*, *Gymnothorax* Bleeker 1864 = *Gymnothorax margaritophorus* Bleeker 1864  
*marginata*, *Thyrsoidea* Kaup 1859 = *Gymnothorax afer* Bloch 1795  
*marmorata*, *Gymnomuraena* Lacepède 1803 = *Uropterygius marmoratus* (Lacepède 1803)  
*marmoreus*, *Muraenophis* Valenciennes 1846 = *Muraena lentiginosa* Jenyns 1842  
*marquesensis*, *Gymnothorax* Seale 1906 = *Gymnothorax buroensis* (Bleeker 1857)  
*marshallensis*, *Rabula* Schultz 1953 = *Gymnothorax marshallensis* (Schultz 1953)  
*mauritiana*, *Muraena* Kaup 1856 = *Gymnothorax flavimarginatus* (Rüppell 1830)  
*mccoskeri*, *Gymnothorax* Smith & Böhlke 1997 = *Gymnothorax mccoskeri* Smith & Böhlke 1997  
*megapterus*, *Gymnothorax* Weber 1913 = *Pseudechidna brummeri* (Bleeker 1858)

*megaspilus*, *Gymnothorax* Böhlke & Randall 1995 = *Gymnothorax megaspilus* Böhlke & Randall 1995  
*melanosomatus*, *Gymnothorax* Loh, Shao & Chen 2011 = *Gymnothorax melanosomatus* Loh, Shao & Chen 2011  
*melanospilos*, *Muraena* Bleeker 1855 = *Gymnothorax isingteena* (Richardson 1845)  
*melanotis*, *Limamuraena* Kaup 1859 = *Muraena melanotis* (Kaup 1859)  
*melatremus*, *Gymnothorax* Schultz 1953 = *Gymnothorax melatremus* Schultz 1953  
*meleagris*, *Muraena* Shaw 1795 = *Gymnothorax meleagris* (Shaw 1795)  
*microdon*, *Thyrsoidea* Kaup 1856 = *Gymnothorax tile* (Hamilton 1822)  
*micropterus*, *Muraena* Bleeker 1852 = *Uropterygius micropterus* (Bleeker 1852)  
*microspila*, *Muraena* Günther 1870 = *Gymnothorax reevesii* (Richardson 1845)  
*microstictus*, *Gymnothorax* Böhlke 2000 = *Gymnothorax microstictus* Böhlke 2000  
*mierszowskii*, *Muraena* Steindachner 1896 = *Gymnothorax prionodon* Ogilby 1895  
*miliaris*, *Thyrsoidea* Kaup 1856 = *Gymnothorax miliaris* (Kaup 1856)  
*mindanoensis*, *Gymnothorax* Borodin 1930 = *Gymnothorax javanicus* (Bleeker 1859)  
*minor*, *Muraena* Temminck & Schlegel 1846 = *Gymnothorax minor* (Temminck & Schlegel 1846)  
*modesta*, *Muraena* Kaup 1859 = *Gymnothorax richardsonii* (Bleeker 1852)  
*molendinarius*, *Muraena* Bennett 1833 = *Gymnomuraena zebra* (Shaw 1797)  
*moluccensis*, *Priodonophis* Bleeker 1864 = *Gymnothorax moluccensis* (Bleeker 1864)  
*monochrous*, *Muraena* Bleeker 1856 = *Gymnothorax monochrous* (Bleeker 1856)  
*monostigma*, *Muraena* Regan 1909 = *Gymnothorax monostigma* (Regan 1909)  
*mordax*, *Muraena* Ayres 1859 = *Gymnothorax mordax* (Ayres 1859)  
*moringa*, *Muraena* Cuvier 1829 = *Gymnothorax moringa* (Cuvier 1829)  
*mosaica*, *Fimbrinares* Whitley 1948 = *Enchelycore ramosus* (Griffin 1926)  
*mucifer*, *Gymnothorax* Snyder 1904 = *Gymnothorax kidako* (Temminck & Schlegel 1846)  
*multifasciata*, *Thyrsoidea* Kaup 1856 = *Gymnothorax richardsonii* (Bleeker 1852)  
*multiocellata*, *Muraena* Poey 1860 = *Gymnothorax miliaris* (Kaup 1856)  
*muraena*, *Gymnothorax* Bloch & Schneider 1801 = *Muraena helena* Linnaeus 1758  
*myrialeucostictus*, *Muraena* Fowler 1912 = *Gymnothorax miliaris* (Kaup 1856)  
*nagoensis*, *Uropterygius* Hatoooka 1984 = *Uropterygius nagoensis* Hatoooka 1984  
*nasuta*, *Gymnothorax* de Buen 1961 = *Gymnothorax nasuta* de Buen 1961  
*nebulosa*, *Muraena* Ahl 1789 = *Echidna nebulosa* (Ahl 1789)  
*nectura*, *Gymnomuraena* Jordan & Gilbert 1882 = *Uropterygius macrocephalus* (Bleeker 1864)  
*neglectus*, *Gymnothorax* Tanaka 1911 = *Gymnothorax neglectus* Tanaka 1911  
*nevezi*, *Gymnothorax* Roux 1957 = *Muraena robusta* Osório 1911  
*nigricans*, *Muraena* Bonnaterre 1788 = *Enchelycore nigricans* (Bonnaterre 1788)  
*nigrocastaneus*, *Gymnothorax* Cope 1871 = *Enchelycore nigricans* Bonnaterre 1788)  
*nigrolineata*, *Muraena* Kaup 1856 = *Gymnothorax rueppellii* (McClelland 1844)  
*nigromarginata*, *Neomuraena* Girard 1858 = *Gymnothorax nigromarginatus* (Girard 1858)  
*niphostigmus*, *Gymnothorax* Chen, Shao & Chen 1996 = *Gymnothorax niphostigmus* Chen, Shao & Chen 1996



*nirosus*, *Gymnothorax* Tanaka 1918 = *Gymnothorax prionodon* Ogilby 1895  
*nocturnus*, *Poecilophis* Cope 1872 = *Echidna nocturna* (Cope 1872)  
*nubila*, *Muraena* Richardson 1848 = *Gymnothorax nubilus* (Richardson 1848)  
*nudivomer*, *Muraena* Günther 1867 = *Gymnothorax nudivomer* (Günther 1867)  
*nuttingi*, *Gymnothorax* Snyder 1904 = *Gymnothorax nuttingi* Snyder 1904  
*nycturanus*, *Enchelycore* Smith 2002 = *Enchelycore nycturanus* Smith 2002  
*obesus*, *Uropterygius* Whitley 1932 = *Gymnothorax obesus* (Whitley 1932)  
*obscura*, *Echidna* Jenkins 1903 = *Echidna polyzona* (Richardson 1845)  
*obscuratus*, *Gymnothorax* Poey 1870 = *Gymnothorax vicinus* (Castelnau 1855)  
*obscurirostris*, *Gymnothorax* Rendahl 1921 = *Gymnothorax porphyreus* (Guichenot 1848)  
*ocellatus*, *Gymnothorax* Agassiz 1831 = *Gymnothorax ocellatus* Agassiz 1831  
*octavianus*, *Gymnothorax* Myers & Wade 1941 = *Enchelycore octaviana* (Myers & Wade 1941)  
*odiosus*, *Gymnothorax* Snyder 1908 = *Gymnothorax philippinus* Jordan & Seale 1907  
*okinawae*, *Uropterygius* Jordan & Snyder 1901 = *Scuticaria okinawae* (Jordan & Snyder 1901)  
*oligospondylus*, *Uropterygius* Chen, Randall & Chen 2008 = *Uropterygius oligospondylus* Chen, Randall & Chen 2008  
*ophis*, *Muraena* Rüppell 1830 (Preoccupied) = *Echidna nebulosa* (Ahl 1789)  
*ornata*, *Poecilophis* Kaup 1859 = *Echidna xanthospilos* (Bleeker 1859)  
*panamensis*, *Muraena* Steindachner 1876 = *Gymnothorax panamensis* (Steindachner 1876)  
*pantherina*, *Muraenophis* Lacepède 1803 = *Gymnothorax pictus* (Ahl 1789)  
*pardalis*, *Muraena* Temminck & Schlegel 1846 = *Enchelycore pardalis* (Temminck & Schlegel 1846)  
*parini*, *Gymnothorax* Collette, Smith & Böhlke 1991 = *Gymnothorax parini* Collette, Smith & Böhlke 1991  
*parvibranchialis*, *Lycodontis* Fowler 1900 = *Gymnothorax eurostus* (Abbott 1861)  
*pavonina*, *Muraena* Richardson 1845 = *Muraena pavonina* Richardson 1845  
*pele*, *Poecilophis* Kaup 1856 = *Echidna pele* (Kaup 1856)  
*pelonates*, *Diaphenchelys* McCosker & Randall 2007 = *Diaphenchelys pelonates* McCosker & Randall 2007  
*permistus*, *Lycodontis* Smith 1962 = *Gymnothorax favagineus* Bloch & Schneider 1801  
*perustus*, *Lycodontis* Smith 1962 = *Gymnothorax chilospilus* Bleeker 1864  
*pescadoris*, *Gymnothorax* Jordan & Evermann 1902 = *Gymnothorax isingteena* (Richardson 1845)  
*petelli*, *Muraena* Bleeker 1856 = *Gymnothorax rueppellii* (McClelland 1844)  
*pfeifferi*, *Muraena* Bleeker 1853 = *Gymnothorax pictus* (Ahl 1789)  
*phalarus*, *Gymnothorax* Bussing 1998 = *Gymnothorax phalarus* Bussing 1998  
*phasmatodes*, *Lycodontis* Smith 1962 = *Gymnothorax phasmatodes* (Smith 1962)  
*philippinus*, *Gymnothorax* Jordan & Seale 1907 = *Gymnothorax philippinus* Jordan & Seale 1907  
*picta*, *Muraena* Ahl 1789 = *Gymnothorax pictus* (Ahl 1789)  
*picturatus*, *Gymnothorax* Poey 1880 = *Gymnothorax moringa* (Cuvier 1829)  
*pikei*, *Gymnothorax* Bliss 1883 = *Gymnothorax pikei* Bliss 1883  
*pikei*, *Gymnothorax* Seale 1917 = *Gymnothorax pikei* Bliss 1883

*pikiei*, *Poecilophis* Bliss 1883 = *Echidna polyzona* (Richardson 1845)  
*pindae*, *Gymnothorax* Smith 1962 = *Gymnothorax pindae* Smith 1962  
*pinta*, *Muraena* Jordan & Gilbert 1882 = *Muraena lentiginosa* Jenyns 1842  
*polygonius*, *Gymnothorax* Poey 1875 = *Gymnothorax polygonius* Poey 1875  
*polyodon*, *Strophidon* Bleeker 1864 = *Pseudechidna brummeri* (Bleeker 1858)  
*polyophthalmus*, *Muraena* Bleeker 1858 = *Gymnothorax pictus* (Ahl 1789)  
*polyspila*, *Gymnomuraena* Regan 1909 = *Uropterygius polyspilus* (Regan 1909)  
*polyspondylus*, *Gymnothorax* Böhlke & Randall 2000 = *Gymnothorax polyspondylus* Böhlke & Randall 2000  
*polystictus*, *Uropterygius* Myers & Wade 1941 = *Uropterygius polystictus* Myers & Wade 1941  
*polyuranodon*, *Muraena* Bleeker 1853 = *Gymnothorax polyuranodon* (Bleeker 1853)  
*polyzona*, *Muraena* Richardson 1845 = *Echidna polyzona* (Richardson 1845)  
*porphyreus*, *Murenophis* Guichenot 1848 = *Gymnothorax porphyreus* (Guichenot 1848)  
*prasina*, *Muraena* Richardson 1848 = *Gymnothorax prasinus* (Richardson 1848)  
*prionodon*, *Gymnothorax* Ogilby 1895 = *Gymnothorax prionodon* Ogilby 1895  
*prismodon*, *Gymnothorax* Böhlke & Randall 2000 = *Gymnothorax prismodon* Böhlke & Randall 2000  
*prolatus*, *Gymnothorax* Sasaki & Amaoka 1991 = *Gymnothorax prolatus* Sasaki & Amaoka 1991  
*prosopeion*, *Muraena* Bleeker 1853 = *Gymnothorax thyrsoideus* (Richardson 1845)  
*psalion*, *Echidna* Jenkins 1903 = *Echidna polyzona* (Richardson 1845)  
*pseudoherrei*, *Gymnothorax* Böhlke 2000 = *Gymnothorax pseudoherrei* Böhlke 2000  
*pseudothyrsoides*, *Muraena* Bleeker 1852 = *Gymnothorax pseudothyrsoides* (Bleeker 1852)  
*punctata*, *Muraena* Rafinesque 1810 = *Muraena helena* Linnaeus 1758  
*punctata*, *Muraena* Gronow 1854 (Preoccupied). = *Gymnothorax moringa* (Cuvier 1829)  
*punctata*, *Strophidon* McClelland 1844 = *Muraenophis tile* Hamilton 1822  
*punctata*, *Murenophis* Castelnau 1855 (Preoccupied) = *Muraena retifera* Goode & Bean 1882  
*punctatofasciatus*, *Gymnothorax* Bleeker 1863 = *Gymnothorax punctatofasciatus* Bleeker 1863  
*punctatus*, *Gymnothorax* Bloch & Schneider 1801 = *Gymnothorax punctatus* Bloch & Schneider 1801  
*python*, *Muraena* Kaup 1856 = *Gymnothorax favagineus* Bloch & Schneider 1801  
*quaesita*, *Rhinomuraena* Garman 1888 = *Rhinomuraena quaesita* Garman 1888  
*ramosus*, *Gymnothorax* Griffin 1926 = *Enchelycore ramosa* (Griffin 1926)  
*randalli*, *Gymnothorax* Smith & Böhlke 1997 = *Gymnothorax randalli* Smith & Böhlke 1997  
*reevesii*, *Muraena* Richardson 1845 = *Gymnothorax reevesii* (Richardson 1845)  
*reidi*, *Uropterygius* Schultz 1943 = *Uropterygius macrocephalus* (Bleeker 1864)  
*reticularis*, *Gymnothorax* Bloch 1795 = *Gymnothorax reticularis* Bloch 1795  
*reticulata*, *Thaerodontis* McClelland 1844 = *Gymnothorax favagineus* Bloch & Schneider 1801  
*reticulatus*, *Anarchias* Herre 1923 = *Uropterygius micropterus* (Bleeker 1852)  
*retifera*, *Muraena* Goode & Bean 1882 = *Muraena retifera* Goode & Bean 1882  
*rhodocephalus*, *Gymnothorax* Bleeker 1864 = *Gymnothorax formosus* Bleeker 1864  
*rhodochilus*, *Echidna* Bleeker 1863 = *Echidna rhodochilus* Bleeker 1863

*richardsonii*, *Muraena* Bleeker 1852 = *Gymnothorax richardsonii* (Bleeker 1852)  
*robinsi*, *Gymnothorax* Böhlke 1997 = *Gymnothorax robinsi* Böhlke 1997  
*robusta*, *Muraena* Osório 1911 = *Muraena robusta* Osório 1911  
*romana*, *Muraena* Shaw 1803 = *Muraena helena* Linnaeus 1758  
*rosaliae*, *Ahynnodontophis* Howell Rivero 1932 = *Gymnothorax maderensis* (Johnson 1862)  
*rostratus*, *Gymnothorax* Agassiz 1831 = *Gymnothorax moringa* (Cuvier 1829)  
*rotchii*, *Rabula* Clark 1936 = *Echidna nocturna* (Cope 1872)  
*rueppelliae*, *Dalophis* McClelland 1844 = *Gymnothorax rueppellii* (McClelland 1844)  
*ryukyuensis*, *Gymnothorax* Hatooka 2003 = *Gymnothorax ryukyuensis* Hatooka 2003  
*sagmacephalus*, *Gymnothorax* Böhlke 1997 = *Gymnothorax sagmacephalus* Böhlke 1997  
*samalensis*, *Gymnothorax* Seale 1910 = *Gymnothorax chilospilus* Bleeker 1864  
*sanctae-helenae*, *Muraena* Günther 1870 = ?*Enchelycore anatina* (Lowe 1838)  
*sathete*, *Muraenophis* Hamilton 1822 = *Strophidon sathete* (Hamilton 1822)  
*sauvagei*, *Echidna* Fowler 1912 = *Echidna polyzona* (Richardson 1845)  
*saxicola*, *Gymnothorax ocellatus* Jordan & Davis 1891 = *Gymnothorax saxicola* Jordan & Davis 1891  
*scabra*, *Echidna* Garman 1899 = *Echidna nocturna* (Cope 1872)  
*schismatorhynchus*, *Muraena* Bleeker 1853 = *Enchelycore schismatorhynchus* (Bleeker 1853)  
*schonlandi*, *Siderea* Smith 1949 = *Gymnothorax griseus* (Lacepède 1803)  
*schultzi*, *Anarchias* Reece, Smith & Holm 2010 = *Anarchias schultzi* Reece, Smith & Holm 2010  
*scoliodon*, *Muraena* Bleeker 1853 = *Gymnothorax richardsonii* (Bleeker 1852)  
*scriptus*, *Gymnothorax* Poey 1867 (Preoccupied). = *Gymnothorax miliaris* (Kaup 1856)  
*sealei*, *Uropterygius* Whitley 1932 = *Scuticaria okinawae* (Jordan & Snyder 1901)  
*serratidens*, *Priodonophis* Hildebrand & Barton 1949 = *Gymnothorax serratidens* (Hildebrand & Barton 1949)  
*seychellensis*, *Anarchias* Smith 1962 = *Anarchias seychellensis* Smith 1962  
*shaoi*, *Gymnothorax* Chen & Loh 2007 = *Gymnothorax shaoi* Chen & Loh 2007  
*shirleyi*, *Muraena* Griffin 1933 = *Gymnothorax prionodon* Ogilby 1895  
*siderea*, *Muraena* Richardson 1848 = *Gymnothorax pictus* (Ahl 1789)  
*signifer*, *Gymnothorax* Bliss 1883 = *Gymnothorax rueppellii* (McClelland 1844)  
*similis*, *Muraena* Richardson 1848 = *Gymnothorax kidako* (Temminck & Schlegel 1846)  
*similis*, *Leptocephalus* Lea 1913 = *Anarchias similis* (Lea 1913)  
*sokotrensis*, *Gymnothorax* Kotthaus 1968 = *Gymnothorax sokotrensis* Kotthaus 1968  
*sordida*, *Muraena* Cuvier 1816 = *Echidna catenata* (Bloch 1795)  
*steindachneri*, *Gymnothorax* Jordan & Evermann 1903 = *Gymnothorax steindachneri* Jordan & Evermann 1903  
*stigmanotus*, *Gymnothorax* Fowler 1912 = *Gymnothorax castaneus* (Jordan & Gilbert 1882)  
*strommani*, *Leptocephalus* Eigenmann & Kennedy 1902 = *Gymnothorax moringa* (Cuvier 1829)  
*supraforata*, *Gymnomuraena* Regan 1909 = *Uropterygius supraforatus* (Regan 1909)  
*supremus*, *Anarchias* McCosker & Stewart 2006 = *Anarchias supremus* McCosker & Stewart 2006  
*taenioides*, *Muraena* Günther 1872 = *Pseudechidna brummeri* (Bleeker 1858)

*tahitensis*, *Gymnothorax* Seale 1906 = *Gymnothorax buroensis* (Bleeker 1857)  
*taiwanensis*, *Gymnothorax* Chen, Loh & Shao 2008 = *Gymnothorax taiwanensis* Chen, Loh & Shao 2008  
*talofa*, *Gymnothorax* Jordan & Starks 1906 = *Gymnothorax margaritophorus* Bleeker 1864  
*tamarae*, *Enchelycore* Prokofiev 2005 = *Gymnothorax fimbriatus* Bennett 1832.  
*tessellata*, *Muraena* Richardson 1845 = *Gymnothorax favagineus* Bloch & Schneider 1801  
*thalassopterus*, *Gymnothorax* Jenkins 1903 = *Gymnothorax flavimarginatus* (Rüppell 1830)  
*thomsoni*, *Gymnothorax* Borodin 1928 = *Gymnothorax pictus* (Ahl 1789)  
*thyrsoidea*, *Muraena* Richardson 1845 = *Gymnothorax thyrsoideus* (Richardson 1845)  
*tigrinus*, *Ichthyophis* Lesson 1828 = *Scuticaria tigrina* (Lesson 1828)  
*tile*, *Muraenophis* Hamilton 1822 = *Gymnothorax tile* (Hamilton 1822)  
*tinkhami*, *Uropterygius* Fowler 1945 = *Uropterygius micropterus* (Bleeker 1852)  
*trinitatis*, *Muraena* Miranda-Ribeiro 1919 = *Gymnothorax miliaris* (Kaup 1856)  
*tristis*, *Muraena* Kaup 1856 = *Gymnothorax afer* Bloch 1795  
*tritor*, *Poecilophis* Vaillant & Sauvage 1875 = *Echidna polyzona* (Richardson 1845)  
*troschellii*, *Muraena* Bleeker 1853 = *Gymnothorax richardsonii* (Bleeker 1852)  
*trossula*, *Echidna* Jordan & Starks 1906 = *Echidna delicatula* (Kaup 1856)  
*tuhua*, *Muraena* Griffin 1933 = *Gymnothorax obesus* (Whitley 1932)  
*ui*, *Strophidon* Tanaka 1918 = *Strophidon sathete* (Hamilton 1822)  
*umbra*, *Lycodontis* Fowler 1944 = *Gymnothorax panamensis* (Steindachner 1876)  
*umbrofasciata*, *Muraena* Rüppell 1852 = *Gymnothorax rueppellii* (McClelland 1845)  
*umbrosus*, *Gymnothorax* Poey 1875 = *Enchelycore nigricans* (Bonnaterre 1788)  
*undulata*, *Muraenophis* Lacepède 1803 = *Gymnothorax undulatus* (Lacepède 1803)  
*unicolor*, *Echidna* Schultz 1953 = *Echidna unicolor* Schultz 1953  
*unicolor*, *Muraenophis* Delaroche 1809 = *Gymnothorax unicolor* (Delaroche 1809)  
*unicolor*, *Scuticaria* Seale 1917 = *Scuticaria okinawae* (Jordan & Snyder 1901)  
*vagrans*, *Muraena* Seale 1917 = *Gymnothorax vagrans* (Seale 1917)  
*valenciennii*, *Muraena* Eydoux & Souleyet 1850 = *Gymnothorax undulatus* (Lacepède 1803)  
*variegata*, *Muraena* Rafinesque 1810 = *Muraena helena* Linnaeus 1758  
*variegata*, *Muraena* Quoy & Gaimard 1824 (Preoccupied) = *Gymnothorax pictus* (Ahl 1789)  
*variegata*, *Muraena* Richardson 1848 (Preoccupied) = *Echidna nebulosa* (Ahl 1789)  
*variegata*, *Muraenophis* Castelnau 1855 (Secondarily preoccupied) = *Gymnothorax ocellatus* Agassiz 1831  
*venosa*, *Muraena* Kaup 1856 = *Gymnothorax richardsonii* (Bleeker 1852)  
*vermicularis*, *Muraena* Peters 1855 = *Gymnothorax richardsonii* (Bleeker 1852)  
*vermiculata*, *Muraena* Richardson 1848 = *Gymnothorax tile* (Hamilton 1822)  
*vermiformis*, *Anarchias* Smith 1962 = *Uropterygius concolor* Rüppell 1838  
*verrilli*, *Sidera* Jordan & Gilbert 1883 = *Gymnothorax verrilli* (Jordan & Gilbert 1883)  
*versipunctatus*, *Gymnothorax* Poey 1876 = *Gymnothorax vicinus* (Castelnau 1855)  
*versutus*, *Uropterygius* Bussing 1991 = *Uropterygius versutus* Bussing 1991

*vicina*, *Murenophis* Castelnau 1855 = *Gymnothorax vicinus* (Castelnau 1855)  
*vincta*, *Echidna* Jenkins 1903 = *Echidna polyzona* (Richardson 1845)  
*vinolentus*, *Gymnothorax* Jordan & Evermann 1903 = *Enchelynassa canina* (Quoy & Gaimard 1824)  
*virescens*, *Gymnothorax* Poey 1876 = *Gymnothorax vicinus* (Castelnau 1855)  
*viridipinna*, *Muraena* Seale 1917 = *Gymnothorax flavimarginatus* (Rüppell 1830)  
*viridipinnis*, *Gymnothorax* Bliss 1883 = *Gymnothorax flavimarginatus* (Rüppell 1830)  
*vittatus*, *Ichthyophis* Richardson 1845 = *Channomuraena vittata* (Richardson 1845)  
*vorax*, *Muraena* Ogilby 1907 = *Muraena helena* Linnaeus 1758  
*waialuae*, *Gymnothorax* Snyder 1904 = *Gymnothorax rueppellii* (McClelland 1844)  
*wakanourae*, *Gymnothorax* Tanaka 1908 = *Gymnothorax eurostus* (Abbott 1861)  
*walvisensis*, *Gymnothorax* Prokofiev & Kukuev 2009 = *Gymnothorax walvisensis* Prokofiev & Kukuev 2009  
*westphali*, *Taeniophis* Kaup 1859 = *Gymnothorax funebris* Ranzani 1839  
*wheeleri*, *Uropterygius* Blache 1967 = *Uropterygius wheeleri* Blache 1967  
*wieneri*, *Gymnothorax* Sauvage 1883 = *Gymnothorax porphyreus* (Guichenot 1848)  
*woodwardi*, *Gymnothorax* McCulloch 1912 = *Gymnothorax woodwardi* McCulloch 1912  
*wooliensis*, *Lycodontis* Whitley 1968 = *Gymnothorax prionodon* Ogilby 1895  
*xanthopterus*, *Uropterygius* Bleeker 1859 = *Uropterygius xanthopterus* Bleeker 1859  
*xanthospilos*, *Muraena* Bleeker 1859 = *Echidna xanthospilos* (Bleeker 1859)  
*xanthospilus*, *Lycodontis* Fowler 1944 = *Muraena lentiginosa* Jenyns 1842  
*xanthostomus*, *Gymnothorax* Snyder 1904 = *Gymnothorax nudivomer* (Günther 1867)  
*xenodontus*, *Uropterygius* McCosker & Smith 1997 = *Uropterygius xenodontus* McCosker & Smith 1997  
*yoshiae*, *Anarchias* Kanazawa 1952 = *Anarchias similis* (Lea 1913)  
*ypsilon*, *Gymnothorax* Hatooka & Randall 1992 = *Gymnothorax ypsilon* Hatooka & Randall 1992  
*zebra*, *Gymnothorax* Shaw 1797 = *Gymnomuraena zebra* (Shaw 1797)  
*zebra*, *Muraenophis* Lesueur 1825 = *Echidna catenata* (Bloch 1795)  
*zonata*, *Echidna* Fowler 1900 = *Echidna polyzona* (Richardson 1845)  
*zonipectis*, *Gymnothorax* Seale 1906 = *Gymnothorax zonipectis* Seale 1906  
*zonophaea*, *Echidna* Jordan & Evermann 1903 = *Echidna polyzona* (Richardson 1845)

## INCERTAE SEDIS SPECIES NAMES

For one reason or another, the following cannot be assigned to a known species. Detailed explanations for many of them can be found in Böhlke and Smith (2002).

*accipiter*, *Leptocephalus* Fowler 1938: 20, pl. 5 (figs. 1–2). Based on a larva.

*afra*, *Muraenophis* Lacepède 1803: 628, 641. Perhaps an emendation of *Gymnothorax afer* Bloch 1795.

*africana*, *Strophidon* McClelland 1844: 214. Apparently a new name for *Muraenophis afra* Lacepède, 1803.

*appendiculata*, *Murenophis* Guichenot 1848: 341. Based on an unfinished drawing, now lost.

*caudatum*, *Leptocephalus* Shen 1963: 263, Figs. 4–8. Based on a larva.

*colubrina*, *Muraenophis* Lacepède 1803: 627, 641, pl. 19 (fig. 1). No types known, not identifiable from description.



*dakini*, *Gymnothorax* Whitley & Colefax 1938: 285, pl. 14 (fig. 2). Holotype lost, not identifiable from description.

*dinocephala*, *Muraena* Metzelaar 1919: 211, fig. 58–58a. Type unknown, not identifiable from description.

*duivenbodei*, *Muraena* Bleeker 1856a: 385. Holotype (BMNH 1867.11.28.275) faded and damaged, not identifiable.

*dumerili*, *Thyrsoidea* Kaup 1856a: 62. Status uncertain, possibly intended as a new name for *Muraena guttata* Solander & Richardson 1848, but the treatment was not clear. Could be considered a nomen oblitum in the synonymy of *Muraena augusti* (Kaup 1856).

*dussumieri*, *Leptocephalus* Kaup 1856b: 151, pl. 19 (fig. 17). Based on a larva.

*edentata*, *Leptocephalus* Shen 1963: 265, figs. 9–12. Based on a larva.

*erythraeus*, *Leptocephalus* D'Ancona 1928: 87, pl. 4 (figs. 17–17a). Based on a larva.

*feyhonnieni*, *Gymnothorax* Chen 1929: 38, pl. 3. Holotype missing, not identifiable from description.

*flaveola*, *Muraenophis* Lesson 1831: 128, Poissons pl. 11 (fig. 2). Holotype missing, not identifiable from description.

*garsiae*, *Gymnothorax* Whitley & Colefax 1938: 286, pl. 14 (fig. 3). Holotype missing, not identifiable from description.

*gillii*, *Leptocephalus* Eigenmann & Kennedy 1902: 88, figs. 7, 7a–b. Based on a larva.

*grassianus*, *Leptocephalus* D'Ancona 1928: 70, pl. 4 (figs. 8–8a). Based on a larva.

*griseobadia*, *Muraena* Richardson 1848: 89. Holotype missing, not identifiable from description.

*haui*, *Muraenophis* Lacepède 1803: 629, 646, pl. 17 (fig. 2). No types known, not identifiable from description.

*insuetus*, *Anarchias* Whitley 1932a: 272, fig. 1. Holotype (AMS IA.4458) small and faded; a species of *Uropterygius*, not further identifiable.

*intermedia*, *Muraena tessellata* Günther 1870: 107. No types known, not identifiable from description.

*latus*, *Leptocephalus* Eigenmann & Kennedy 1902: 87, figs. 6, 6a–b. Based on a larva.

*lineata*, *Muraenophis* Lesson 1831: 127, Poissons pl. 11 (fig. 1). No types known, not identifiable from description.

*macrops*, *Thyrsoidea* Kaup 1856b: 74. Not identifiable.

*macrosiphon*, *Gymnothorax* Bleeker 1872: 154. No types known, not identifiable from description.

*maculaepinnis*, *Gymnothorax* Bleeker in Steindachner 1866: 473. No types known, not identifiable from description.

*marmorata*, *Muraena* Quoy & Gaimard 1824: 247. No types known, not identifiable from description.

*marmoratus*, *Muraenophis* Guichenot 1848: 342. No types known, not identifiable from description.

*micropoecilus*, *Muraena* Bleeker 1855b: 459. Holotype (BMNH 1867.11.28.320) in poor condition, not identifiable.

*mulleri*, *Muraena* Kaup 1856b: 69, pl. 11 (fig. 54). Holotype missing, not identifiable from description.

*muraenoides*, *Leptocephalus* D'Ancona 1928: 79, pl. 4 (figs. 12–12a). Based on a larva.

*net*, *Muraena* Montrouzier 1857: 488 [210]. No types known, not identifiable from description.

*nigra*, *Muraena* Day 1871: 70 (Preoccupied by *Muraena nigra* Risso, 1810 [Congridae]). A species of *Echidna*, not further identifiable.

*pantherinus*, *Ichthyophis* Lesson 1831: 131, Poissons pl. 13. Holotype missing, not identifiable from description.

*pintita*, *Muraena* Jordan & Gilbert 1882a: 346. Holotype lost, not conclusively identifiable from description.

*puhipape*, *Muraena* Curtiss 1938: 34. No types known, not identifiable from description.

*punctarenae*, *Gymnothorax* Fowler 1917: 3. Holotype lost, not identifiable from description.

*sagenodeta*, *Muraena* Richardson 1848: 81. Holotype (BMNH.2008.4.9.1) stuffed and damaged, not identifiable.

*scriptus*, *Gymnothorax* Bloch & Schneider 1801: 529. No types known, not identifiable from description.

*stellata*, *Muraenophis* Lacepède 1803: 629, 642. Holotype missing, not identifiable from description.

*stellifer*, *Muraena* Richardson 1848: 86. Holotype (BMNH 2012.2.15.2) in poor condition, not identifiable.

*subfuscus*, *Leptocephalus* Fowler 1944: 389, fig. 52. Based on a larva.

*teatae*, *Muraena* Curtiss 1938: 35. No types known, not identifiable from description.

*tenebrosa*, *Muraena* Richardson 1848: 84. Holotype (BMNH 2012.2.15.1) in poor condition, not identifiable.

*thyrsoides*, *Muraena* Richardson 1845a: no p., pl. 49 (fig. 1). No type known; possibly a synonym of *Gymnothorax undulatus* (Lacepède 1803) or *Gymnothorax pseudothyrsoides* (Bleeker 1852); if the latter, it would be a nomen oblitum. Without a type, a positive identification is impossible.

*tiahua*, *Muraena* Curtiss 1938: 35. No types known, not identifiable from description.

*truncatum*, *Leptocephalus* Shen 1963: 266, figs. 13–14. Based on a larva.

*unicolor*, *Muraena* Olafsen & Povelsen 1775: 205. No types known; stated to come from Iceland, an unlikely location for a muraenid.

*vamos*, *Muraena* Hamilton 1822: 24, 364. No types known, not identifiable from description.

*viridis*, *Muraena* Shaw 1803: 33. No types known, no locality given.

*vittata*, *Muraena* Richardson 1848: 89. No types known, not identifiable from description.

*wilsoni*, *Gymnothorax* Bloch & Schneider 1801: 529. No types known, not identifiable from description.

## UNAVAILABLE SPECIES NAMES

*arenatus*, *Muraenophis* Cuvier in Kaup 1856a: 61, 1856b: 85, Nomen nudum, published in synonymy of *Thyrsoidea arenata* Kaup, 1856. Apparently a museum name, never published.

*atlanticus*, *Uropterygius* Vaillant in Roule 1919: 135, Nomen nudum. In the synonymy of *Anarchias grassii* (Roule 1916) — (Blache et al. 1973: 226). In the synonymy of *Anarchias longicauda* (Peters 1877)— (Smith & Böhlke 1990: 136).

*atra*, *Muraena* Ehrenberg in Klunzinger 1871: 614, Nomen nudum, published in synonymy of *Muraena corallina* Klunzinger 1871.

*bicolor*, *Muraena* Bleeker 1864–65: 99, Nomen nudum, published in synonymy of *Gymnothorax reticularis* Bloch 1795. Perhaps the same as *Gymnothorax enigmaticus* McCosker & Randall 1982 — (Böhlke & Smith 2002: 97).

*breviceps*, *Gymnomuraena* Schmeltz 1879: 38, Nomen nudum. Unneeded replacement name, in the synonymy of *Scuticaria tigrina* (Lesson 1828) — (Böhlke & Randall 2000: 265).

*echidna*, *Gymnothorax* Suckow 1799: 181. Böhlke and Smith (2002: 107) treated this name as a nomen nudum. It seems, however, that it was simply a new combination for *Muraena echidna* Gmelin 1789, which is a synonym of *Echidna nebulosa* (Ahl 1789).

*eritonia*, *Rhinechnida* Jordan 1927: 4, Nomen nudum. Apparently a lapsus for *Rhinomuraena eritima* Jordan & Seale 1906 — (Böhlke & Smith 2002: 109).

*fasciata*, *Muraena* Banks and Solander in Richardson 1848: 88, Nomen nudum, published in synonymy of *Muraena colubrina* Lacepède 1803.

*fasciatus*, *Muraenophis* Hardwick in Kaup 1856a: 68, 1856b: 103, Nomen nudum, published in synonymy of *Gymnomuraena fasciata* Kaup 1856 — (Böhlke & Randall 2000: 224).

*geographica*, *Muraena* Richardson 1848: 94, Nomen nudum, published in synonymy of *Muraena variegata* Richardson 1848 — (Böhlke & Randall 2000: 217; Böhlke & Smith 2002: 112).

*guttata*, *Limmamuraena* Duméril 1856: 200, Nomen nudum.

*leopardina*, *Muraena* Kaup 1856a: 61, Nomen nudum, published in synonymy of *Muraena bullata* Richardson 1848.

*melanostigma*, *Muraena* Kaup 1856a: 61, Nomen nudum, published in synonymy of *Muraena bullata* Richardson 1848.

*monaca*, *Muraena* Günther 1870: 125, Nomen nudum, published in synonymy of *Muraena unicolor* Delaroche 1809.

*ophis*, *Muraena* Forsskål 1775: xiv, Nomen nudum. In the synonymy of *Echidna nebulosa* (Ahl 1789) — (Böhlke & Smith 2002: 134; Fricke 2008: 15 [listed incorrectly as *Echidna zebra*]).

*paum*, *Calamaia* Russell 1803: 22, pl. 32. Not a scientific name; described in a brief Latin phrase, with the comment that the natives called it calamaia paum. In synonymy of *Gymnothorax meleagris* (Shaw and Nodder 1795).

*pernotatus*, *Priodonophis* Poey 2000: 800, pl. 442 (fig. 1). Not explicitly proposed as a new name. Published posthumously.

*pratbernon*, *Muraena* Quoy & Gaimard 1824: 246, pl. 52. Not available, appeared as a common name in a figure caption. In synonymy of *Muraena picta* Ahl 1789.

*pratbernon*, *Muraena* Richardson 1848: 84. Nomen oblitum. In synonymy of *Muraena javanica* Bleeker 1859.

*rhinechidna*, *Enchelynassa* Jordan 1927: 4. A lapsus for *Enchelynassa canina* (Quoy & Gaimard 1824) — (Böhlke & Randall 2000: 222).

*tentaculata*, *Muraena* Gudger 1929: 523. Nomen nudum, name on a drawing. In the synonymy of *Rhinomuraena quaesita* Garman 1888.

*tigrina*, *Muraenophis* Cuvier in Kaup 1856a: 61. Nomen nudum, published in synonymy of *Muraena bullata* Richardson 1848.

*tricolor*, *Muraena* Richardson 1848: 82. Nomen nudum, published in synonymy of *Muraena ocellata* (Agassiz 1831) — (Böhlke et al. 1989: 174).

*unicolor*, *Uropterygius* Kaup 1856a: 69. A lapsus for *Uropterygius concolor* Rüppell 1838.

*variegata*, *Echidna* Forster in Richardson 1848: 94. Nomen nudum, published in synonymy of *Muraena variegata* Richardson 1848.

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The late Eugenia B. Böhlke contributed much of the groundwork that went into this study. Without her enthusiasm, dedication, hard work, and generous cooperation, this paper would not have been possible. The initial list of species names and references was provided by W. N. Eschmeyer through his Checklist of Fishes project. The list was brought up to date by the present author, who is responsible for all taxonomic decisions.

## Literature Cited

Abbott, C.C. (1860 before 30 Nov.) Description of new species of apodal fishes in the museum of the Academy of Natural Sciences of Philadelphia. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 12, 475–479.

- Ahl, J.N. (1789) *Specimen ichthyologicum de Muraena et Ophichtho, quod venia exp. fac. Med. ups. Praeside Carol. Pet. Thunberg, etc.* Upsala. 1–14.
- Aoyagi, H. (1943) *Coral fishes*. Part 1. Maruzen Co. Ltd., i–viii + i–xii + 1–224.
- Ayres, W.O. (1859) On new fishes of the Californian coast. *Proceedings of the California Academy of Sciences (Ser. 1)*, 2, 25–32.
- Barbour, T. (1908, 29 Feb.) Notes on *Rhinomuraena*. *Proceedings of the Biological Society of Washington*, 21, 39–42.
- Beebe, W. & Tee-Van, J. (1933, 21 Feb.) Nomenclatural notes on the shore fishes of Bermuda. *Zoologica (N. Y.)*, 13 (7), 133–158.
- Bennett, E.T. (1832, 2 Mar.) Observations on a collection of fishes from the Mauritius, presented by Mr. Telfair, with characters of new genera and species. *Proceedings of the Zoological Society of London*, 1830–31 (pt. 1), 165–169.
- Bennett, E.T. (1833, 17 May) Characters of new species from the Mauritius, *Proceedings of the Zoological Society of London*, 1833 (pt. 1), 32.
- Ben-Tuvia, A. & Golani, D. (1984) A West African fangtooth moray eel *Enchelycore anatina* from the Mediterranean coast of Israel. *Copeia*, 1984: 541–544.
- Blache, J. (1967a) Contribution à la connaissance des poissons Anguilliformes de la côte occidentale d'Afrique. Troisième note, le genre *Echidna* Forster 1788 [Muraenidae]. *Bulletin de l'Institut Fondamental D'Afrique Noire (Ser. A) Sciences Naturelles*, 29, 695–709.
- Blache, J. (1967b) Contribution à la connaissance des poissons Anguilliformes de la côte occidentale d'Afrique. Sixième note, les genres *Anarchias*, *Uropterygius* et *Channomuraena* [Muraenidae]. *Bulletin de l'Institut Fondamental D'Afrique Noire (Ser. A) Sciences Naturelles*, 29, 1706–1731.
- Blache, J., Bauchot, M.-L. & Saldanha, L. (1973) Muraenidae. In: Hureau, J. C. & Monod, Th. (Eds.), *Checklist of the fishes of the north-eastern Atlantic and of the Mediterranean* (vol. 1). UNESCO, Paris, pp. 224–227.
- Bleeker, P. (1852a) Derde bijdrage tot de kennis der ichthyologische fauna van Celebes. *Natuurkundig Tijdschrift voor Nederlandsch Indie*, 3, 739–782.
- Bleeker, P. (1852b) Bijdrage tot de kennis der ichthyologische fauna van de Moluksche Eilanden. Visschen van Amboina en Ceram. *Natuurkundig Tijdschrift voor Nederlandsch Indie*, 3, 229–309.
- Bleeker, P. (1853a) Bijdrage tot de kennis der Muraenoiden en Symbranchoiden van den Indischen Archipel. *Verhandlingen van het Bataaviasch Genootschap van Kunsten en Wetenschappen*, 25, 1–76.
- Bleeker, P. (1853b) Diagnostische beschrijvingen van nieuwe of weinig bekende vischsoorten van Sumatra, Tiental V–X. *Natuurkundig Tijdschrift voor Nederlandsch Indie*, 4, 243–302.
- Bleeker, P. (1853c) Derde bijdrage tot de kennis der ichthyologische fauna van Ceram. *Natuurkundig Tijdschrift voor Nederlandsch Indie*, 5, 233–248.
- Bleeker, P. (1853d) Vierde bijdrage tot de kennis der ichthyologische fauna van Celebes. *Natuurkundig Tijdschrift voor Nederlandsch Indie*, 5, 153–174.
- Bleeker, P. (1854a) Bijdrage tot de kennis der ichthyologische fauna van het eiland Floris. *Natuurkundig Tijdschrift voor Nederlandsch Indie*, 6, 311–338.
- Bleeker, P. (1854b) Ichthyologische waarnemingen, gedaan op verschillende reizen in de residentie Banten. *Natuurkundig Tijdschrift voor Nederlandsch Indie*, 7, 309–326.
- Bleeker, P. (1855a) Nalezingen op de vischfauna van Sumatra. Visschen van Lahat en Sibogha. *Natuurkundig Tijdschrift voor Nederlandsch Indie*, 9, 257–280.
- Bleeker, P. (1855b) Vierde bijdrage tot de kennis der ichthyologische fauna van de Kokos-eilanden. *Natuurkundig Tijdschrift voor Nederlandsch Indie*, 8, 445–460.
- Bleeker, P. (1856a) Zevende bijdrage tot de kennis der ichthyologische fauna van Ternate. *Natuurkundig Tijdschrift voor Nederlandsch Indie*, 10, 357–386.
- Bleeker, P. (1856b) Verslag omtrent eenige vischsoorten gevangen aan de Zuidkust van Malang in Oost-Java. *Natuurkundig Tijdschrift voor Nederlandsch Indie*, 11, 81–92.
- Bleeker, P. (1856c) Beschrijvingen van nieuwe of weinig bekende vischsoorten van Manado en Makassar, grootendeels verzameld op eene reis naar den Molukschen Archipel in het gevolg van den Gouverneur Generaal Duymaer van Twist. *Acta Societatis Scientiarum Indo-Neerlandicae*, 1, 1–80.
- Bleeker, P. (1856d) Derde Bijdrage tot de kennis der ichthyologische fauna van de Batoe-eilanden. *Natuurkundig Tijdschrift voor Nederlandsch Indie*, 12, 229–242.
- Bleeker, P. (1857) Tweede bijdrage tot de kennis der ichthyologische fauna van Boero. *Natuurkundig Tijdschrift voor Nederlandsch Indie*, 13, 55–82.
- Bleeker, P. (1858a) Tiende bijdrage tot de kennis der vischfauna van Celebes. *Acta Societatis Scientiarum Indo-Neerlandicae*, 3, 1–16.
- Bleeker, P. (1858b) Vierde bijdrage tot de kennis der ichthyologische fauna van Timor. Visschen van Atapoepoe. *Natuurkundig Tijdschrift voor Nederlandsch Indie*, 17, 129–140.
- Bleeker, P. (1859) Over eenige vischsoorten van de Zuidkust-wateren van Java *Natuurkundig Tijdschrift voor Nederlandsch Indie*, 19, 329–352.
- Bleeker, P. (1860) Achtste bijdrage tot de kennis der vischfauna van Sumatra (Visschen van Benkoelen, Priaman, Tandjong, Palembang en Djambi). *Acta Societatis Scientiarum Indo-Neerlandicae*, 8 (art. 2), 1–88.
- Bleeker, P. (1861) Zesde bijdrage tot de kennis der vischfauna van Timor. *Natuurkundig Tijdschrift voor Nederlandsch Indie*, 22, 247–261.
- Bleeker, P. (1863a) Sur une nouvelle espèce d' *Echidna* de l'île de Rotti. *Nederlandsch Tijdschrift voor Dierkunde*, 1, 246–247.
- Bleeker, P. (1863b) Sur quelques espèces nouvelles ou peu connues de *Gymnothorax* Bl. de l'Inde archipélagique. *Nederlandsch Tijdschrift voor Dierkunde*, 1, 167–171.
- Bleeker, P. (1863c) Septième mémoire sur la faune ichthyologique de l'île de Timor. *Nederlandsch Tijdschrift voor Dierkunde*,



- Bleeker, P. (1863d) Notices sur une collection de poissons de la Nouvelle Hollande faite à Port-Jackson. *Verslagen en Mededeelingen der Koninklijke Akademie van Wetenschappen, Afdeling Natuurkunde*, 15, 442–451.
- Bleeker, P. (1864–65) *Atlas ichthyologique des Indes Orientales Néerlandaises, publié sous les auspices du Gouvernement colonial néerlandaises. Tome IV. Murènes, Synbranches, Leptocephales*, 1–150, pls. 145–193.
- Bleeker, P. (1864a) Poissons inédits indo-archipélagiques de l'ordre des Murènes. *Nederlandsch Tijdschrift voor Dierkunde*, 2, 38–54.
- Bleeker, P. (1864b) Systema Muraenorum revisum. *Nederlandsch Tijdschrift voor de Dierkunde*, 2, 113–122.
- Bleeker, P. (1872) Mémoire sur la faune ichthyologique de Chine. *Nederlandsch Tijdschrift voor Dierkunde*, 4, 113–154.
- Bliss, R. (1883) Descriptions of new species of Mauritian fishes. *Transactions de la Société Royale des Arts et de Sciences de Maurice (N. S.)*, 13, 45–63.
- Bloch, M.E. (1795) *Naturgeschichte der ausländischen Fische*. Berlin. vol. 9, i–ii + 1–192, pls. 397–429.
- Bloch, M.E. & Schneider, J. G. (1801) *M. E. Blochii, Systema Ichthyologiae Iconibus CX Illustratum*. Berolini. lx + 584 pp., 110 pls.
- Boeseman, M. (1947) Revision of the fishes collected by Burger and Von Siebold in Japan. *Zoologische Mededelingen (Leiden)*, 28, i–vii + 1–242, pls. 1–5.
- Böhlke, E.B. (1982) Vertebral formulae for type specimens of eels (Pisces: Anguilliformes). *Proceedings of the Academy of Natural Sciences of Philadelphia*, 134, 31–49.
- Böhlke, E.B. (1995) Notes on the muraenid genera *Strophidon*, *Lycodontis*, *Siderea*, *Thyrsoidea*, and *Pseudechidna*, with a redescription of *Muraena thyrsoidea* Richardson, 1845. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 146, 459–466.
- Böhlke, E.B. (1997a) Notes on the identity of elongate unpatterned Indo-Pacific morays, with description of a new species (Muraenidae, Subfamily Muraeninae). *Proceedings of the Academy of Natural Sciences of Philadelphia*, 147, 89–109.
- Böhlke, E.B. (1997b) *Gymnothorax robinsi* (Anguilliformes, Muraenidae), a new dwarf moray with sexually dimorphic dentition from the Indo-Pacific. *Bulletin of Marine Science*, 60, 648–655.
- Böhlke, E.B. (2000) Notes on the identity of small, brown, unpatterned Indo-Pacific moray eels, with descriptions of three new species (Anguilliformes, Muraenidae). *Pacific Science*, 54, 395–416.
- Böhlke, E.B. (2001) *Gymnothorax eurygnathos*, a new moray from the Gulf of California (Anguilliformes, Muraenidae). *Revista de Biología Tropical*, 49 (Suppl. 1), 1–5.
- Böhlke, E.B. & Brito, A. (1987) *Gymnothorax bacalladoi* [sic], a new moray from the Canary Islands (Pisces, Muraenidae). *Proceedings of the Academy of Natural Sciences of Philadelphia*, 139, 459–463.
- Böhlke, E.B. & McCosker, J.E. (1982) *Monopenchelys*, a new eel genus, and redescription of the type species, *Uropterygius acutus* Parr (Pisces, Muraenidae). *Proceedings of the Academy of Natural Sciences of Philadelphia*, 134, 127–134.
- Böhlke, E.B. & McCosker, J.E. (1997) Review of the moray eel genus *Scuticaria* and included species (Pisces: Anguilliformes: Muraenidae: Uropterygiinae). *Proceedings of the Academy of Natural Sciences of Philadelphia*, 148, 171–176.
- Böhlke, E.B. & McCosker, J.E. (2001) The moray eels of Australia and New Zealand, with the description of two new species (Anguilliformes, Muraenidae). *Records of the Australian Museum*, 53, 71–102.
- Böhlke, E.B., McCosker, J.E. & Böhlke, J. E. (1989) Family Muraenidae. In: Böhlke, E. B. (Ed.), *Fishes of the western North Atlantic. Memoirs of the Sears Foundation for Marine Research*, 1 (pt. 9), 104–206.
- Böhlke, E.B. & Randall, J.E. (1995) *Gymnothorax megaspilus*, a new species of moray eel (Anguilliformes, Muraenidae) from southern Oman and Somalia. *Notulae Naturae*, 472, 1–5.
- Böhlke, E.B. & Randall, J.E. (1996) *Siderea flavocula*, a new species of moray eel (Anguilliformes, Muraenidae) from Oman. *Journal of South Asian Natural History*, 2, 95–101.
- Böhlke, E.B. & Randall, J.E. (1999) *Gymnothorax castlei*, a new species of Indo-Pacific moray eel (Anguilliformes, Muraenidae). *Raffles Bulletin of Zoology*, 47, 549–554.
- Böhlke, E.B. & Randall, J.E. (2000) A review of the moray eels (Anguilliformes [sic], Muraenidae) of the Hawaiian Islands, with descriptions of two new species. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 150, 203–278.
- Böhlke, E.B. & Smith, D.G. (2002). Type catalogue of Indo-Pacific Muraenidae. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 152, 89–172.
- Böhlke, J.E. (1967) The descriptions of three new eels from the tropical west Atlantic. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 118, 91–108.
- Böhlke, J.E. & Böhlke, E.B. (1976) The chestnut moray, *Enchelycore carychroa*, a new species from the west Atlantic. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 127, 137–146.
- Böhlke, J.E. & Böhlke, E.B. (1977) A new moray, *Gymnothorax hubbsi* (Anguilliformes, Muraenidae), from the western north Atlantic. *Bulletin of Marine Science*, 27, 237–240.
- Böhlke, J.E. & Böhlke, E.B. (1980a) *Enchelycore kamara*, a new moray from the tropical Pacific Ocean. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 132, 173–175.
- Böhlke, J.E. & Böhlke, E.B. (1980b) The identity of the moray *Gymnothorax conspersus* Poey, and description of *G. kolpos* n. sp., from the western Atlantic Ocean. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 132, 218–227.
- Bonnaterre, J.P. (1788) *Tableau encyclopédique et méthodique des trois règnes de la nature... Ichthyologie*. Paris, i–lvi + 1–215, pls. A–B + 1–100.
- Borodin, N.A. (1928) Scientific results of the yacht "Ara" Expedition during the years 1926 to 1928, while in command of William K. Vanderbilt. *Fishes. Bulletin of the Vanderbilt Oceanographic Museum*, 1, 1–37.
- Borodin, N.A. (1930) Scientific results of the Yacht "Ara" Expedition during the years 1926 to 1930, while in command of William K. Vanderbilt. *Fishes (collected in 1929). Bulletin of the Vanderbilt Oceanographic Museum*, 1, 39–64, pls. 1–2.
- Bryan, W.A. & Herre, A.W.C.T. (1903) Annotated list of Marcus Island fishes. In: A monograph of Marcus Island. *Occasional Papers of the Bernice P. Bishop Museum*, 2, 126–139.



- Bussing, W.A. (1991). A new species of eastern Pacific moray eel (Pisces, Muraenidae). *Revista de Biología Tropical*, 39, 97–102.
- Bussing, W.A. (1998) *Gymnothorax phalarus*, a new eastern pacific moray eel (Pisces, Muraenidae). *Revista de Biología Tropical*, 46, 439–445.
- Castelnau, F.L. (1855) Poissons. In: *Animaux nouveaux or rares recueillis pendant l'expédition dans les parties centrales de l'Amérique du Sud, de Rio de Janeiro a Lima, et de Lima au Para; exécutée par ordre du gouvernement Français pendant les années 1843 a 1847 ...* Part 7, Zoology, 2, i–xii + 1–112, pls. 1–50.
- Chen, H.-M. & Böhlke, E.B. (1996) Redescription and new records of a rare moray eel, *Echidna xanthospilos* (Bleeker, 1859) (Anguilliformes: Muraenidae). *Zoological Studies*, 35, 300–304.
- Chen, H.-M. & Loh, K.-H. (2007) *Gymnothorax shaoi*, a new species of moray eel (Anguilliformes, Muraenidae) from southeastern Taiwan. *Journal of Marine Science and Technology*, 15, 76–81.
- Chen, H.-M., Loh, K.-H. & Shao, K.-T. (2008) A new species of moray eel, *Gymnothorax taiwanensis*, (Anguilliformes, Muraenidae) from eastern Taiwan. *Raffles Bulletin of Zoology*, Suppl. 19, 131–134.
- Chen, H.-M. & Shao, K.-T. (1995) New eel genus, *Cirrimaxilla*, and description of the type species, *Cirrimaxilla formosa* (Pisces, Muraenidae) from southern Taiwan. *Bulletin of Marine Science*, 57, 328–332.
- Chen, H.-M., Shao, K.-T. & Chen, C.-T. (1996) A new moray eel, *Gymnothorax niphostigmus*, (Anguilliformes, Muraenidae) from northern and eastern Taiwan. *Zoological Studies*, 35, 20–24.
- Chen, J.T.F. (1929). A review of the Apodal fishes of Kwangtung. *Bulletin Biology Department, Scientific Collection Sun Yatsen University*, 1, 1–46, pls. 1–3.
- Clark, H.W. (1936) New and noteworthy fishes. The Templeton Crocker Expedition of the California Academy of Sciences, 1932. *Proceedings of the California Academy of Sciences (Ser. 4)*, 21, 383–396.
- Collette, B.B., Smith, D.G. & Böhlke, E.B. (1991) *Gymnothorax parini*, a new species of moray eel (Teleostei, Muraenidae) from Walters Shoals, Madagascar Ridge. *Proceedings of the Biological Society of Washington*, 104, 344–350.
- Collignon, J., Rossignol, M. & Roux, C. (1957) *Mollusques, Crustacés, Poissons marins des Côtes d'A.E.F., en collection au Centre d'Océanographie de l'Institut d'Études Centrafricaines de Pointe-Noire*. Office de Recherche Scientifique et Technique Outre-Mer, Paris. 369 pp.
- Cope, E.D. (1871) Contribution to the ichthyology of the Lesser Antilles. *Transactions of the American Philosophical Society (N. S.)*, 14, 445–483.
- Cope, E.D. (1872) Report on the recent reptiles and fishes of the survey, collected by Campbell Carrington and C. M. Dawes. In Hayden, V. F., *U. S. Geological Survey Territories Annual Report*, 5 (pt. 4), 467–476.
- Curtiss, A. (1938) *A short zoology of Tahiti in the Society Islands*. Guide Printing Company, Inc., Brooklyn, New York. i–xvi + 1–193.
- Cuvier, G. (1797) *Tableau élémentaire de l'Histoire Naturelle des animaux*. Paris. i–xvi + 1–710, pls. 1–14.
- Cuvier, G. (1816, Nov.) *Le Règne Animal distribué d'après son organisation pour servir de base à l'histoire naturelle des animaux et d'introduction à l'anatomie comparée. Les reptiles, les poissons, les mollusques et les annélides*. Edition 1, vol. 2, i–xviii + 1–532, [pls. 9–10, in vol. 4].
- Cuvier, G. (1829 Mar.) *Le Règne Animal, distribué d'après son organisation, pour servir de base à l'histoire naturelle des animaux et d'introduction à l'anatomie comparée*. Edition 2, vol. 2, i–xv + 1–406.
- D'Ancona, U. (1928) Murenoidi (Apodes) del Mar Rosso e del Golfo di Aden. Materiali raccolti dal Prof. Luigi Sanzo nella Campagna della R. N. "Ammiraglio Magnaghi" 1923–24. *Memoria Comitato Talassografico Italiano*, 146, 1–146, pls. 1–5.
- Day, F. (1871 Apr.) On the fishes of the Andaman Islands. *Proceedings of the Zoological Society of London*, 1870 (pt. 3), 677–705.
- de Buen, F. (1961 Sept.) Peces Chilenos. Familias Alepocephalidae, Muraenidae, Sciaenidae, Scorpaenidae, Liparidae y Bothidae. *Revista de Biología Marina Montemar*, 1, 1–52.
- De Filippi, F. (1853) Nouvelles espèces de poissons. *Revue et Magazine de Zoologie (Ser. 2)*, 5, 168.
- Delaroche, F.E. (1809) Suite du mémoire sur les espèces de poissons observées à Ivica. Observations sur quelques-uns des poissons indiqués dans le précédent tableau et descriptions des espèces nouvelles ou peu connues. *Annales du Muséum d'Histoire Naturelle, Paris*, 13, 313–361, pls. 20–25.
- Deraniyagala, P.E.P. (1931, 8 Aug.) Further notes on the anguilliform fishes of Ceylon. *Spolia Zeylanica (The Ceylon Journal of Science) Sec. B, Zoology & Geology*, 16 (pt. 2), 131–137, pls. 31–32.
- Duméril, A.M.C. (1856) Ichthyologie analytique ou classification des poissons, suivant la méthode naturelle, à l'aide de tableaux synoptiques. *Mémoires de l'Académie des Sciences, Paris : tirés des registres de cette Académie*, 27 (1), 1–507.
- Eigenmann, C.H. & Kennedy, C.H. (1902) The Leptocephalus of the American eel and other American Leptocephali. *Bulletin of the United States Fish Commission*, 21, 81–92.
- Eschmeyer, W.N. (ed.) Catalog of Fishes electronic version (07/06/2012). <http://research.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>
- Evermann, B.W. & Marsh, M.C. (1899, 19 Dec.) Descriptions of new genera and species of fishes from Puerto Rico. *Report of the United States Commissioner on Fish and Fisheries*, 24, 351–362.
- Evermann, B.W. & Marsh, M.C. (1900, 29 Dec.) The fishes of Porto Rico. *Bulletin of the United States Fish Commission*, 20 (pt. 1) [for 1900], 49–350, pls. 1–49.
- Eydoux, J.F.T. & Souleyet, F.A. (1850) Poissons. In: *Voyage autour du monde exécuté pendant les années 1836 et 1837 sur la corvette La Bonite, commandée par M. Vaillant, Zoologie*, 1 (pt. 2). Paris. pp. 155–216.
- Forsskål, P. (1775) *Descriptiones animalium avium, amphibiorum, piscium, insectorum, vermium; quae in itinere orientali observavit... Post mortem auctoris edidit Carsten Niebuhr*. Hauniae. 1–20 + i–xxxiv + 1–164, map.
- Forster, J.R. (1788) *Enchiridion historiae naturali inserviens, quo, termini et delineationes ad avium, piscium, insectorum et plantarum adumbrationes intelligendas et concinnandas, secundum methodum systematis Linnaeani continentur*.

- Hemmerde & Schwetschke, Halae. 1–6 + 6 + 1–224.
- Fourmanoir, P. & Rivaton, I. (1979) Poissons de la pente récifale externe de Nouvelle-Calédonie et des Nouvelles-Hébrides. *Cahiers de l'Indo-Pacifique*, 1, 405–443.
- Fowler, H.W. (1900, 31 Oct.–6 Nov.) Contributions to the ichthyology of the tropical Pacific. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 52, 493–528, pls. 18–20.
- Fowler, H.W. (1912, 3 Apr.) Descriptions of nine new eels, with notes on other species. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 64, 8–33.
- Fowler, H.W. (1917, 24 Jan.) Fishes from Puntarenas, Costa Rica. *Copeia*, 39, 2–4.
- Fowler, H.W. (1928) The fishes of Oceania. *Memoirs of the Bernice P. Bishop Museum*, 10, i–iii + 1–540, pls. 1–49.
- Fowler, H.W. (1936) The marine fishes of West Africa based on the collection of the American Museum Congo Expedition, 1909–1915. Part II. *Bulletin of the American Museum of Natural History*, 70 (pt. 2), 607–1493.
- Fowler, H.W. (1938 14 Oct.) The fishes of the George Vanderbilt South Pacific Expedition, 1937. *Monographs of the Academy of Natural Sciences of Philadelphia*, 2, 1–349, pls. 1–12.
- Fowler, H.W. (1944, 25 Aug.) Results of the fifth George Vanderbilt expedition (1941) (Bahamas, Caribbean Sea, Panama, Galápagos Archipelago and Mexican Pacific islands). The Fishes. *Monographs of the Academy of Natural Sciences of Philadelphia*, 6, 57–529, pls. 1–20.
- Fowler, H.W. (1945, 31 Oct.) Fishes from Saipan Island, Micronesia. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 97, 59–74.
- Fowler, H.W. & Bean, B.A. 1923 (22 Dec.) Descriptions of eighteen new species of fishes from the Wilkes Exploring Expedition, preserved in the United States National Museum. *Proceedings of the United States National Museum*, 63, 1–27.
- Fricke, R. (1999) *Fishes of the Mascarene Islands (Réunion, Mauritius, Rodriguez). An annotated checklist with descriptions of new species*. Koeltz Scientific Books. viii + 759 pp.
- Fricke, R. (2008) Authorship, availability and validity of fish names described by Peter (Pehr) Simon Forsskål and Johann Christian Fabricius in the 'Descriptiones Animalium' by Carsten Niebuhr in 1775 (Pisces). *Stuttgarter Beiträge zur Naturkunde A, Neue Serie*, 1, 1–76.
- Garman, S. (1888) On an eel from the Marshall Islands. [Also titled, An eel (*Rhinomuraena quaesita*) from the Marshall Islands.]. *Bulletin of the Essex Institute*, 20, 114–116.
- Garman, S. (1899, Dec.) The Fishes. In: Reports on an exploration off the west coasts of Mexico, Central and South America, and off the Galapagos Islands ... by the U. S. Fish Commission steamer "Albatross," during 1891 ... No. XXVI. *Memoirs of the Museum of Comparative Zoology*, 24, 1–431, pls. 1–85 + A–M.
- Girard, C.F. (1858) Notes upon various new genera and new species of fishes, in the museum of the Smithsonian Institution, and collected in connection with the United States and Mexican boundary survey, Major William Emory, Commissioner. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 10, 167–171.
- Gmelin, J.F. (1789) *Caroli a Linné ... Systema Naturae per regna tria naturae, secundum classes, ordines, genera, species; cum characteribus, differentiis, synonymis, locis. Editio decimo tertia, aucta, reformata.* 3 vols. in 9 parts. Lipsiae, 1788–93. vol. 1 (pt. 3), 1033–1516.
- Goode, G.B. & Bean, T.H. (1882, 16 Sept.–11 Nov.) Descriptions of twenty-five new species of fish from the southern United States, and three new genera, *Letharcus*, *Ioglossus*, and *Chriodorus*. *Proceedings of the United States National Museum*, 5, 412–437.
- Gosline, W.A. (1958, July) Central Pacific eels of the genus *Uropterygius*, with descriptions of two new species. *Pacific Science*, 12, 221–228.
- Gray, J.E. (1854) *Catalogue of fish collected and described by Laurence Theodore Gronow, now in the British Museum*. London. vii + 196 pp.
- Griffin, L.T. (1926, 26 Apr.) Descriptions of New Zealand Fishes. *Transactions of the New Zealand Institute*, 56, 538–546, pls. 93–98.
- Griffin, L.T. (1933, 28 Feb.) Descriptions of New Zealand fishes. *Transactions of the New Zealand Institute*, 63, 171–177, pls. 24–25.
- Gudger, E.W. (1929, 7 Sept.) Nicolas Pike and his unpublished paintings of the fishes of Mauritius, western Indian Ocean, with an index to the fishes. *Bulletin of the American Museum of Natural History*, 58, 489–530.
- Guichenot, A. (1848) Fauna Chilena. Peces. In: Gay, C. *Historia física y política de Chile, Zoología*, 2. Paris & Santiago. pp. 137–370.
- Günther, A. (1870, 25 June) *Catalogue of the fishes in the British Museum. Catalogue of the Physostomi, containing the families Gymnotidae, Symbranchidae, Muraenidae, Pegasidae, and of the Lophobranchii, Plectognathi, Dipnoi, ... [thru] ... Leptocardii, in the British Museum*. vol. 8, xxv + 549 pp.
- Günther, A. (1872, Apr.) Report on several collections of fishes recently obtained for the British Museum. *Proceedings of the Zoological Society of London*, 1871, 652–675, pls. 53–70.
- Hamilton, F. [Buchanan] (1822) *An account of the fishes found in the river Ganges and its branches*. Edinburgh & London. vii + 405 pp., 39 pls.
- Hatooka, K. (1984, 15 May) *Uropterygius nagoensis*, a new muraenid eel from Okinawa, Japan. *Japanese Journal of Ichthyology*, 31, 20–22.
- Hatooka, K. (2002) Family Muraenidae. In: Nakabo, T. (Ed.) *Fishes of Japan with pictorial keys to the species, English edition*. Tokai University Press. 1, i–lxi + 1–866.
- Hatooka, K. (2003) A new moray eel, *Gymnothorax ryukyuensis*, from the western Pacific Ocean (Anguilliformes, Muraenidae). *Bulletin of the Osaka Museum of Natural History*, 57, 1–9.
- Hatooka, K. & Randall, J.E. (1992, 30 Nov.) A new moray eel (*Gymnothorax*, Muraenidae) from Japan and Hawaii. *Japanese Journal of Ichthyology*, 39, 183–190.

- Hector, J. (1877, May) Notes on New Zealand ichthyology. *Transactions of the New Zealand Institute*, 9, 465–469, pls. 8–9.
- Heemstra, P.C. (2004) *Gymnothorax hansi*, a new species of moray eel (Teleostei, Anguilliformes, Muraenidae) from the Comoro Islands, Western Indian Ocean. *Zootaxa*, 515, 1–7.
- Herre, A.W.C.T. (1923, 8 Aug.) A review of the eels of the Philippine Archipelago. *Philippine Journal of Science*, 23, 123–236, pls. 1–11.
- Herre, A.W.C.T. (1935, 15 Feb.) New fishes obtained by the Crane Pacific expedition. *Field Museum Natural History Publications Zoology Series*, 18, 383–438.
- Hildebrand, S. F. (1946, 26 Feb.) A descriptive catalog of the shore fishes of Peru. *Bulletin of the United States National Museum*, 189, i–xi + 1–530.
- Hildebrand, S.F. & Barton, O. (1949, 18 Aug.) A collection of fishes from Talara, Perú. *Smithsonian Miscellaneous Collections*, 111, 1–36.
- Howell Rivero, L. (1932, 2 Apr.) The apodal fishes of Cuba. *Proceedings of the New England Zoological Club*, 13, 3–26.
- Jenkins, O.P. (1903, 23 July) Report on collections of fishes made in the Hawaiian Islands, with descriptions of new species. *Bulletin of the United States Fish Commission*, 22 [for 1902], 415–511, pls. 1–4.
- Jenyns, L. (1840–42) Fish. In: *The zoology of the voyage of H. M. S. Beagle, under the command of Captain Fitzroy, R. N., during the years 1832 to 1836*. Smith, Elder, and Co., London. xvi + 172 pp, 29 pls.
- Jimenez, S, Schönhuth, S, Lozano, I. J., González, J. A., Sevilla, R. G., Diez, A. & Bautista, J. M. (2007) Morphological, ecological, and molecular analyses separate *Muraena augusti* from *Muraena helena* as a valid species. *Copeia*, 2007, 101–113.
- Johnson, J.Y. (1862, Sept.) Descriptions of some new genera and species of fishes obtained at Madeira. *Proceedings of the Zoological Society of London*, 1862, 167–180, pls. 22–23.
- Jordan, D.S. (1927) Shore fishes of Samoa. *Journal of the Pan-Pacific Research Institute*, 2, 3–11.
- Jordan, D.S. & Davis, B.M. (1891) A preliminary review of the apodal fishes or eels inhabiting the waters of America and Europe. *Report of the United States Commissioner on Fish and Fisheries*, 16, 581–677, pls.
- Jordan, D.S. & Evermann, B.W. (1896, 3 Oct.) The fishes of North and Middle America, a descriptive catalogue of the species of fish-like vertebrates found in the waters of North America, north of the Isthmus of Panama. Part I. *Bulletin of the United States National Museum*, 47, i–lx + 1–1240.
- Jordan, D.S. & Evermann, B.W. (1898, 26 Nov.) The fishes of North and Middle America, a descriptive catalogue of the species of fish-like vertebrates found in the waters of North America north of the Isthmus of Panama. Part III. *Bulletin of the United States National Museum*, 47, i–xxiv + 2183a–3136.
- Jordan, D.S. & Evermann, B.W. (1902, 24 Sept.) Notes on a collection of fishes from the island of Formosa. *Proceedings of the United States National Museum*, 25, 315–368.
- Jordan, D.S. & Evermann, B.W. (1903, 11 Apr.) Descriptions of new genera and species of fishes from the Hawaiian Islands. *Bulletin of the United States Fish Commission*, 22 [for 1902], 161–208.
- Jordan, D.S. & Gilbert, C.H. (1882a, 6 Apr.) Descriptions of thirty-three new species of fishes from Mazatlan, Mexico. *Proceedings of the United States National Museum*, 4, 338–365.
- Jordan, D.S. & Gilbert, C.H. (1882b, 16 Sept.) Catalogue of the fishes collected by Mr. John Xantus at Cape San Lucas, which are now in the United States National Museum, with descriptions of eight new species. *Proceedings of the United States National Museum*, 5, 353–371.
- Jordan, D.S. & Gilbert, C.H. (1883a, early April) Synopsis of the fishes of North America. *Bulletin of the United States National Museum*, 16, liv + 1018 pp.
- Jordan, D.S. & Gilbert, C. H. (1883b, 22–29 May) List of fishes now in the museum of Yale College, collected by Prof. Frank H. Bradley, at Panama, with descriptions of three new species. *Proceedings of the United States National Museum*, 5, 620–632.
- Jordan, D.S. & Gilbert, C.H. (1883c, 29 May) Description of a new eel (*Sidera castanea*) from Mazatlán, Mexico. *Proceedings of the United States National Museum*, 5, 647–648.
- Jordan, D.S. & Gilbert, C.H. (1883d, 12 Oct.) Description of a new muraenoid eel (*Sidera chlevastes*) from the Galapagos Islands. *Proceedings of the United States National Museum*, 6, 208–210.
- Jordan, D.S. & Richardson, R.E. (1909) A catalogue of the fishes of the island of Formosa, or Taiwan, based on the collections of Dr. Hans Sauter. *Memoirs of the Carnegie Museum*, 4, 159–204, pls. 63–74.
- Jordan, D.S. & Seale, A. (1906, 15 Dec.) The fishes of Samoa. Description of the species found in the archipelago, with a provisional check-list of the fishes of Oceania. *Bulletin of the United States Bureau of Fisheries*, 25 [for 1905], 173–455 + index 457–488, pls. 33–53.
- Jordan, D.S. & Seale, A. (1907, 11 Jan.) Fishes of the islands of Luzon and Panay. *Bulletin of the United States Bureau of Fisheries*, 26 [for 1906], 1–48.
- Jordan, D.S. & Snyder, J.O. (1901, 28 Aug.) A review of the apodal fishes or eels of Japan, with descriptions of nineteen new species. *Proceedings of the United States National Museum*, 23, 837–890.
- Jordan, E.K. (1925, 22 Sept.) Notes on the fishes of Hawaii, with descriptions of six new species. *Proceedings of the United States National Museum*, 66, 1–43, pls. 1–2.
- Kanazawa, R. H. (1952, 20 Nov.) More new species and new records of fishes from Bermuda. *Fieldiana Zoology*, 34, 71–100.
- Kaup, J.J. (1855) *Enchelynassa*, neue Gattung aus der Familie der Aale. *Archiv für Naturgeschichte*, 21, 213–214, pl. 10.
- Kaup, J.J. (1856a) Uebersicht der Aale. *Archiv für Naturgeschichte*, 22, 41–77.
- Kaup, J.J. (1856b) *Catalogue of the apodal fish in the collection of the British Museum*. London, 1–163, pls. 1–19.
- Kaup, J.J. (1859) Neue aalähnliche Fische des Hamburger Museums. *Abhandlungen aus dem Gebiete der Naturwissenschaften Herausgegeben von dem Naturwissenschaftlichen Verein in Hamburg*, 4 (no. 2), 1–29 + suppl. 1–4, pls. 1–5. [Journal dates to 1860, but published as a separate in 1859]
- Klausewitz, W. (1964, 21 Dec.) Zwei neue Arten von aalartigen Fischen aus dem Indischen Ozean (Pisces, Apodes,



- Muraenidae, Ophichthidae). *Senckenbergiana Biologica*, 45 (6), 665–669.
- Klunzinger, C.B. (1871) Synopsis der Fische des Rothen Meeres. II. Theil. *Verhandlungen der kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien*, 21, 441–688.
- Kotthaus, A. (1968) Fische des Indischen Ozeans. A. Systematischer Teil. III. Ostariophysi und Apodes. *Meteor Forschungsergebnisse, Reihe D, Biologie*, 3, 14–56.
- Lacepède, B.G.E. (1803, 11 July) *Histoire naturelle des poissons*, 5, i–lxviii + 1–803 + index, pls. 1–21.
- Lavenberg, R.J. (1992) A new moray eel (Muraenidae, *Gymnothorax*) from oceanic islands of the South Pacific. *Pacific Science*, 46, 58–67.
- Lea, E. (1913) Muraenoid larvae from the "Michael Sars" North Atlantic deep-sea expedition 1910. *Scientific Results of the Michael Sars North Atlantic Deep-Sea Expedition 1910*, 3 (pt. 1, no. 7), 1–59, pls. 1–6.
- Lesson, R.P. (1828) Description du nouveau genre *Ichthyophis* et de plusieurs espèces inédites ou peu connues de poissons, recueillis dans le voyage autour du monde de la Corvette "La Coquille." *Memoires de la Societe d'Histoire Naturelle de Paris*, 4, 397–412.
- Lesson, R.P. (1830–31) Poissons. In, L. I. Duperrey. *Voyage autour du monde, ..., sur la corvette de La Majesté La Coquille, pendant les années 1822, 1823, 1824 et 1825...*, *Zoologie. Zool.*, 2 (pt. 1), 66–238, pls. 1–38.
- Lesueur, C.A. (1825, Aug.) Descriptions of four new species of *Muraenophis*. *Journal of the Academy of Natural Sciences of Philadelphia*, 5, 107–109, pl. 4.
- Linnaeus, C. (1758, 1 Jan.) *Systema Naturae*, Ed. X. (*Systema naturae per regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis. Tomus I. Editio decima, reformata.*) Holmiae. vol. 1, i–ii + 1–824.
- Loh, K.-H., Chen, I.-S., Randall, J. E. & Chen, H.-M. (2008) A review and molecular phylogeny of the moray eel subfamily Uropterygiinae (Anguilliformes, Muraenidae) from Taiwan, with description of a new species. *Raffles Bulletin of Zoology*, Suppl. 19, 135–150.
- Loh, K.-H., Shao, K.-T. & Chen, H.-M. (2011) *Gymnothorax melanosomatus*, a new moray eel (Teleostei: Anguilliformes: Muraenidae) from southeastern Taiwan. *Zootaxa*, 3134, 43–52.
- Lowe, R.T. (1838, 5 Dec.) A synopsis of the fishes of Madeira; with the principal synonyms, Portuguese names, and characters of the new genera and species. *Transactions of the Zoological Society of London*, 2 (pt. 3, art. 14), 173–200.
- McClelland, J. (1844, 5 July) Apodal fishes of Bengal. *Calcutta Journal of Natural History*, 5, (18), 151–226, pls. 5–14.
- McCosker, J.E. & Randall, J.E. (1977) Three new species of Indo-Pacific moray eels (Pisces, Muraenidae). *Proceedings of the California Academy of Sciences (Ser. 4)*, 41, 161–168.
- McCosker, J.E. & Randall, J.E. (1982) Synonymies of Indian Ocean eels, with the description of *Gymnothorax enigmaticus*, a moray previously known as *G. ruppeli*. *Proceedings of the California Academy of Sciences (Ser. 4)*, 43, 17–24.
- McCosker, J.E. & Randall, J.E. (2007) A new genus and species of mud-dwelling moray eel (Anguilliformes: Muraenidae) from Indonesia. *Proceedings of the California Academy of Sciences (Ser. 4)*, 58, 469–476.
- McCosker, J.E. & Randall, J. E. (2008) A new species of Indo-Pacific moray eel (Anguilliformes: Muraenidae) from Indonesia. *Proceedings of the California Academy of Sciences (Ser. 4)*, 59, 711–714.
- McCosker, J.E. & Rosenblatt, R.H. (1975) The moray eels (Pisces: Muraenidae) of the Galapagos Islands, with new records and synonymies of extralimital species. *Proceedings of the California Academy of Sciences (Ser. 4)*, 40, 417–427.
- McCosker, J.E. & Smith, D.G. (1997) Two new Indo-Pacific morays of the genus *Uropterygius* (Anguilliformes, Muraenidae). *Bulletin of Marine Science*, 60, 1005–1014.
- McCosker, J.E. & Stewart, A.L. (2006) Additions to the New Zealand marine eel fauna with the description of a new moray, *Anarchias supremus* (Teleostei, Muraenidae), and comments on the identity of *Gymnothorax griffini* Whitley & Phillips. *Journal of the Royal Society of New Zealand*, 36, 83–95.
- McCulloch, A.R. (1912) Notes on some Western Australian fishes. *Records of the Western Australian Museum*, 1, 78–97, pls. 9–13.
- Metzelaar, J. (1919) *Report on the fishes, collected by Dr. J. Boeke in the Dutch West Indies 1904–1905, with comparative notes on marine fishes of tropical West Africa*. F. J. Belanfante's-Gravenhage. 314 pp.
- Miranda-Ribeiro, A. de. (1919) A fauna vertebrada da ilha da Trindade. *Arquivos do Museu Nacional do Rio de Janeiro*, 22, 171–193, pls. 1–6.
- Miranda-Ribeiro, P. de (1953) Tipos das espécies e subespécies do Prof. Alipio de Miranda Ribeiro depositados no Museu Nacional. *Arquivos do Museu Nacional do Rio de Janeiro*, 42, 389–417.
- Montrouzier, X. (1857) Essai sur le faune de l'île de Woodlark ou Moïou. Ichthyologie. *Annales de la Société d'Agriculture, Histoire Naturelle et Arts Utiles de Lyon*, 8 (1856), 417–504.
- Mowbray, L.L. (1931, 16 Feb.) Contributions to the natural history of Bermuda. *Fauna Bermudensis*, 1, 8 (unpaged), 3 pls.
- Myers, G.S. & Wade, C.B. (1941, 25 June) Four new genera and ten new species of eels from the Pacific coast of tropical America. *Allan Hancock Pacific Expedition 1932–40*, 9, 65–111, pls. 7–16.
- Nichols, J.T. (1920, 24 July) A contribution to the ichthyology of Bermuda. *Proceedings of the Biological Society of Washington*, 33, 59–64.
- Ogilby, J.D. (1895, 28 Mar.) Description of a new Australian eel. *Proceedings of the Linnaean Society of New South Wales (Ser. 2)*, 9, 720–721.
- Ogilby, J.D. (1907, 1 Feb.) Symbranchiate and apodal fishes new to Australia. *Proceedings of the Royal Society of Queensland*, 20, 1–15.
- Olafsen, E. & Povelsen, B. (1774–75) *Reise durch Island, beschrieben von ... E. Olafsen*. 1 (pts 1–2), i–xvi + 1–244, pls. 27–50.
- Osório, B. (1911) Peixes colhidos nas vizinhanças do archipelago de Cabo Verde. *Memorias do Museum Bocage, Lisboa*, 2, 51–77, pls. 1–2.
- Parr, A.E. (1930, July) Teleostean shore and shallow-water fishes from the Bahamas and Turks Island. (Scientific results of the third oceanographic expedition of the "Pawnee" 1927). *Bulletin of the Bingham Oceanographic Collection, Yale*

University, 3 (art. 4), 1–148.

- Peters, W.(C.H.). (1855) Übersicht der in Mossambique beobachteten Seefische. *Monatsberichte der Akademie der Wissenschaft zu Berlin*, 1855, 428–466.
- Peters, W.(C.H.). (1866) Mittheilung über Fische (*Protopterus, Auliscops, Labrax, Labracoglossa, Nematocentris, Serranus, Scorpius, Opisthognathus, Scombrosox, Acharnes, Anguilla, Gymnomuraena, Chilorhinus, Ophichthys, Helmichthys*). *Monatsberichte der Akademie der Wissenschaft zu Berlin*, 1866, 509–526, 1 pl.
- Peters, W.(C.H.). (1877) Übersicht der während der von 1874 bis 1876 unter der Commando des Hrn. Capitän z. S. Freiherrn von Schleinitz ausgeführten Reise S. M. S. Gazelle gesammelten und von der Kaiserlichen Admiralität der Königlichen Akademie der Wissenschaften übersandten Fische. *Monatsberichte der Akademie der Wissenschaft zu Berlin*, 1876, 831–854.
- Pfaff, J.R. (1933) Report on the fishes collected by Mr. Harry Madsen during Professor O. Olufsen's Expedition to French Sudan in the years 1927–28. *Videnskabelige Meddelelser fra Dansk Naturhistorisk Forening, Kjøbenhavn*, 94, 273–315, pl. 6.
- Pietschmann, V. (1935) Eine neue Aalfamilie aus den hawaiischen Gewässern. *Anzeiger der Akademie der Wissenschaften in Wien*, 72, 93–94.
- Pinto, S.Y. (1975, Nov.) *Lycodontis guarapariensis*, una nueva morena del Atlántico occidental, Brasil (Actinopterygii, Anguilliformes, Muraenidae). *Physis Seccion A los Oceanos y sus Organismos*, 34, 399–403.
- Playfair, R.L. & Günther, A. (1867) *The fishes of Zanzibar, with a list of the fishes of the whole east coast of Africa*. London. [Reprinted in 1971, with a new introduction by G. S. Myers and a new forward by A. E. Gunther; Newton K. Gregg, publisher, Kentfield, California.], i–xix + 1–153, pls. 1–21.
- Poe, F. (1858–61) *Memorias sobre la historia natural de la Isla de Cuba, acompañadas de sumarios Latinos y extractos en Francés*. Tomo 2. La Habana. [Sections have subtitles.], 2, 1–96 (1858), 97–336 (1860), 337–442 (1861), pls. 1–19.
- Poe, F. (1867–68) Monografía de las Morenas cubanas. *Repertorio Fisico-Natural de la Isla de Cuba*, 2, 245–268, 2 pls.
- Poe, F. (1870) New species of Cuban fish. *Annals of the Lyceum of Natural History of New York*, 9, 317–322.
- Poe, F. (1875) Poissons de l'île de Cuba. Espèces nouvelles décrites. *Annals of the Lyceum of Natural History of New York*, 11, 58–70, pls. 7–10.
- Poe, F. (1876, May/Oct.) Enumeratio piscium cubensium (Parte Segunda). *Anales de la Sociedad Española de Historia Natural, Madrid*, 5, 131–176 (3 May) 177–218 (4 Oct.), pls. 4–9.
- Poe, F. (1880) Revisio piscium Cubensium. *Anales de la Sociedad Española de Historia Natural, Madrid*, 9, 243–261, pls. 6–10.
- Poe, F. (2000, Apr.) Ictiologia Cubana. 3 vol. Posthumous transcription of original unpublished manuscript (1884) by D. Guitart Manday. *Biblioteca de Clasicos Cubanos*. Havana. 1–3, xvi + 1–514; 515–1023; xii, atlas, pls. 1–572.
- Poll, M. (1953, 30 Nov.) Poissons III. Téléostéens Malacoptérygiens. *Résultats scientifique. Expédition océanographique belge dans les eaux côtières africaines de l'Atlantique sud (1948–1949)*, 4 (2), 1–258, pls. 1–8.
- Prokofiev, A. M. (2005) New moray species of genus *Enchelycore* (Anguilliformes, Muraenidae) from waters of India. *Voprosy Ikhtologii*, 45, 702–704. [In Russian. Appeared in English in *Journal of Ichthyology*, 45, 670–672.]
- Prokofiev, A. M. (2010) Two New Species of Fishes from Families Muraenidae (Anguilliformes) and Mugiloididae (Perciformes) from the Waters of Vietnam. *Journal of Ichthyology*, 50, 580–589.
- Prokofiev, A. M. & Kukuev E. I. (2009) New findings of rare fish species from the families Mitsukurinidae (Chondrichthyes), Muraenidae, Lophiidae, Macrouridae, and Psychrolutidae (Teleostei) on rises of the Atlantic Ocean with the description of *Gymnothorax walvisensis* sp. nova. *Journal of Ichthyology*, 49, 215–227.
- Quoy, J.R.C. & Gaimard, J.P. (1824–25) Description des Poissons. Chapter IX. In: Freycinet, L. de, *Voyage autour du Monde...exécuté sur les corvettes de L. M. "L'Uranie" et "La Physicienne," pendant les années 1817, 1818, 1819 et 1820*. Paris. pp. 192–401 [1–328 in 1824; 329–616 in 1825], pls. 43–65.
- Rafinesque, C.S. (1810a) *Caratteri di alcuni nuovi generi e nuove specie di animali e piante della sicilia, con varie osservazioni sopra i medesimi*. (Part 1 involves fishes, pp. [i–iv] 3–69 [70 blank], Part 2 with slightly different title, pp. i–iv + 71–105 [106 blank]), pls. 1–20.
- Rafinesque, C.S. (1810b) *Indice d'ittiologia siciliana; ossia, catalogo metodico dei nomi latini, italiani, e siciliani dei pesci, che si rinvencono in Sicilia disposti secondo un metodo naturale e seguito da un appendice che contiene la descrizione de alcuni nuovi pesci siciliana*. Messina. *Indice d'ittiologia siciliana*. 1–70, pls. 1–2.
- Rafinesque, C.S. (1815) *Analyse de la nature, ou tableau de l'univers et des corps organisés*. Palerme. 224 pp.
- Randall, J.E. & Golani, D. (1995, May) Review of the moray eels (Anguilliformes, Muraenidae) of the Red Sea. *Bulletin of Marine Science*, 60, 849–880.
- Randall, J.E. & McCosker, J. E. (1975) The eels of Easter Island with a description of a new moray. *Contributions in Science (Natural History Museum of Los Angeles County)*, 264, 1–32.
- Ranzani, C. (1839) De novis speciebus piscium. *Dissertatio prima. Novi Commentarii Academiae Scientiarum Instituti Bononiensis*, 4 [1840], 65–83, pls. 8–13. [Published as a separate in 1839, pp. 1–19, pls. 1–6].
- Reece, J.S., Smith, D.G. & Holm, E. (2010) The moray eels of the *Anarchias cantonensis* group (Anguilliformes: Muraenidae), with description of two new species. *Copeia*, 2010, 421–430.
- Regan, C.T. (1903) Descriptions de poissons nouveaux faisant partie de la collection du Musée d'Histoire Naturelle de Genève. *Revue Suisse Zoologie*, 11, 413–418, pls. 13–14.
- Regan, C.T. (1909, 1 Nov.) Descriptions of new marine fishes from Australia and the Pacific. *Annals and Magazine of Natural History (Ser. 8)*, 4, 438–440.
- Rendahl, H. (1921) The fishes of Easter Island. In: Skottsberg, C. (Ed.), *The Natural History of Juan Fernandez and Easter Island*. 3 (pt. 1), 59–68.
- Richardson, J. (1844–48) Ichthyology of the voyage of H. M. S. Erebus & Terror,... In: Richardson, J & Gray, J. E. *The zoology of the voyage of H. M. S. "Erebus & Terror," under the command of Captain Sir J. C. Ross ... during ... 1839–43*.



- London, 2 (2), i–viii + 1–139, pls. 1–60. [1844: 1–16; 1845: 17–52; 1846: 53–74; 1848: i–viii + 75–139]
- Richardson, J. (1845a, Apr.) Ichthyology.—Part 2. In: Hinds, R. B. (Ed.) *The zoology of the voyage of H. M. S. Sulphur, under the command of Captain Sir Edward Belcher, R. N., C. B., F. R. G. S., etc., during the years 1836–42*, No. 9. Smith, Elder & Co., London. pp. 71–98, pls. 45–54.
- Richardson, J. (1845b, Oct.) Ichthyology.—Part 3. In: Hinds, R. B. (Ed.) *The zoology of the voyage of H. M. S. Sulphur, under the command of Captain Sir Edward Belcher, R. N., C. B., F. R. G. S., etc., during the years 1836–42*, No. 10. London, Smith, Elder & Co., London. pp. 99–150, pls. 55–64.
- Richardson, J. (1846, June/July) Report on the ichthyology of the seas of China and Japan. *Report of the British Association for the Advancement of Science 15th meeting [1845]*, 187–320.
- Risso, A. (1810) *Ichthyologie de Nice, ou histoire naturelle des poissons du département des Alpes Maritimes*. F. Schoell, Paris. xxxvi + 388 pp., 11 pls.
- Risso, A. (1827, 22 Sept.) *Histoire naturelle des principales productions de l'Europe méridionale, et particulièrement de celles des environs de Nice et des Alpes maritimes*. F. G. Levrault, Paris & Strasbourg. 3, i–xvi + 1–480, pls. 1–16.
- Roule, L. (1916, 20 May) Notice préliminaire sur quelques espèces nouvelles ou rares des poissons provenant des croisières de S. A. S. le Prince de Monaco. *Bulletin de l'Institut Oceanographique (Monaco)*, 320, 1–32.
- Roule, L. (1919) Liste des espèces déterminées par M. le Professeur Léon Vaillant. Appendix. *Resultats du compagnes scientifique accouplées sur son Yacht Par Albert I<sup>er</sup>, prince souverain de Monaco Campagnes Scientifique Prince Albert I*, 52, 129–135.
- Rubinfoff, I. (1966, 25 Feb.) *Gymnothorax galetae*, a new moray eel from the Atlantic coast of Panama. *Breviora*, 240, 1–4.
- Rüppell, W.P.E.S. (1828–30) *Atlas zu der Reise im nördlichen Africa. Fische des Rothen Meeres*. Frankfurt-am-Main. 1–141 + 3 pp., col. pls. 1–35.
- Rüppell, W.P.E.S. (1835–38) *Neue Wirbelthiere zu der Fauna von Abyssinien gehörig. Fische des Rothen Meeres*. Frankfurt-am-Main. 1–148, pls. 1–33. [1835: 1–28, pls. 1–7; 1836: 29–52, pls. 8–14; 1837: 53–80, pls. 15–21; 1838: 81–148, pls. 22–33.]
- Rüppell, W.P.E.S. (1852) *Verzeichniss der in dem Museum der Senckenbergischen naturforschenden Gesellschaft aufgestellten Sammlungen. Vierte Abtheilung. Fische und deren Skelette*. Frankfurt-am-Main. 1–40.
- Russell, P. (1803) *Descriptions and figures of two hundred fishes; collected at Vizagapatam on the coast of Coromandel*. London. vol. 1–2, i–vii + 78 pp. + 85 pp., 197 pls.
- Saldanha, L. & Quéro, J.-C. (1994, 30 Sept.) *Channomuraena bauchotae* (Anguilliformes, Muraenidae), nouvelle espèce de l'Ile de la Réunion, Océan Indien. *Cybius*, 18, 307–313.
- Sasaki, K. & Amaoka, K. (1991) *Gymnothorax prolatus*, a new moray from Taiwan. *Japanese Journal of Ichthyology*, 38, 7–10.
- Sauvage, H.E. (1883, 14 May) Descriptions de quelques poissons de la collection du Muséum d'histoire naturelle. *Bulletin de la Société Philomathique de Paris (Ser. 7)*, 7, 156–161.
- Schmeltz, J.D.E. (1879) *Museum Godeffroy. Catalog VII. Wirbelthiere (Animalia vertebrata) und Nachträge zu Catalog V & VI aus den übrigen Thierklassen*. L. Friedrichsen & Co., Hamburg. viii + 99 pp.
- Schultz, L.P. (1943, 20 Jan.) Fishes of the Phoenix and Samoan islands collected in 1939 during the expedition of the U. S. S. "Bushnell." *Bulletin of the United States National Museum*, 180, i–x + 1–316, Pls 1–9.
- Schultz, L.P., Herald, E. S., Lachner, E. A., Welander, A. D. & Woods, L. P. (1953) Fishes of the Marshall and Marianas islands. Vol. I. Families from Asymmetriontidae through Siganidae. *Bulletin of the United States National Museum*, 202, i–xxxii + 1–685, pls. 1–74.
- Scott, E.O.G. (1965) Observations of some Tasmanian fishes, part XIII. *Papers and Proceedings of the Royal Society of Tasmania*, 99, 53–65.
- Seale, A. (1906) Fishes of the South Pacific. *Occasional Papers of the Bernice P. Bishop Museum*, 4, 1–89, 1 pl.
- Seale, A. (1910, 23 Feb.) New species of Philippine fishes. *Philippine Journal of Science (Sec. A)*, 4, 491–543, pls. 1–13.
- Seale, A. (1917, May) New species of apodal fishes. *Bulletin of the Museum of Comparative Zoology*, 61, 79–94.
- Seale, A. (1940 29 Apr.) Report on fishes from Allan Hancock Expeditions in the California Academy of Sciences. *Allan Hancock Pacific Expeditions 1932–40*, 9 (1), 1–46, 1–5.
- Shaw, G. (1803) *General zoology or systematic natural history ... Pisces*. G. Kearsley, London, 1800–1826. Pisces in vol. 4 (1803) and vol. 5 (1804). [Series is 14 vols., 1800–1826.]. 4 (pt. 1), i–v + 1–186, pls. 1–25; (pt. 2), i–xi + 187–632, pls. 26–92.
- Shaw, G. & Nodder, F.P. (1789–1813) *The Naturalist's Miscellany, or coloured figures of natural objects; drawn and described from nature*. London. unnumbered pages.
- Shen, S.-C. (1963, Dec.) On the occurrence of leptocephalids in the estuary of Tam-sui River of Taiwan. *Quarterly Journal of the Taiwan Museum (Taipei)*, 16, 261–269.
- Smith, D.G. (1994) Catalog of type specimens of recent fishes in the National Museum of Natural History, Smithsonian Institution, 6: Anguilliformes, Saccopharyngiformes, and Notacanthiformes. *Smithsonian Contributions to Zoology*, 566, 1–50.
- Smith, D.G. (2002) *Enchelycore nycturanus*, a new moray eel from South Africa (Teleostei, Anguilliformes, Muraenidae). *Zootaxa*, 104, 1–6.
- Smith, D.G. & Böhlke, E.B. (1990) Muraenidae. In: Quéro, J. C., Hureau, J. C., Karrer, C., Post, A. & Saldanha, L. (Eds), *Check-list of the fishes of the eastern tropical Atlantic*. JNICT Portugal. pp. 136–148.
- Smith, D.G. & Böhlke, E.B. (1997, 31 Oct.) A review of the Indo-Pacific banded morays of the *Gymnothorax reticularis* group, with descriptions of three new species (Pisces, Anguilliformes, Muraenidae). *Proceedings of the Academy of Natural Sciences of Philadelphia*, 148, 177–188.
- Smith, D.G., Brokovich, E., & Einbinder, S. (2008) *Gymnothorax baranesi*, a new moray eel (Anguilliformes, Muraenidae) from the Red Sea. *Zootaxa*, 1678, 63–68.
- Smith, J.L.B. (1949, 17 June [for Feb.]) Forty-two fishes new to South Africa, with notes on others. *Annals and Magazine of*

*Natural History* (Ser. 12), 2, 97–111.

- Smith, J.L.B. (1962) The moray eels of the western Indian Ocean and the Red Sea. *Ichthyological Bulletin of the J. L. B. Smith Institute of Ichthyology*, 23, 421–444, 9 pls.
- Snyder, J.O. (1904, 19 Jan.) A catalogue of the shore fishes collected by the steamer "Albatross" about the Hawaiian Islands in 1902. *Bulletin of the United States Fish Commission*, 22 [for 1902], 513–538, pls. 1–13.
- Snyder, J.O. (1908, 30 Oct.) Descriptions of eighteen new species and two new genera of fishes from Japan and the Riu Kiu Islands. *Proceedings of the United States National Museum*, 35, 93–111.
- Spix, J.B. von & Agassiz, L. (1829–31) *Selecta genera et species piscium quos in itinere per Brasiliam annos MDCCCXVII–MDCCCXX jussu et auspiciis Maximiliani Josephi I.... colleget et pingendso curavit Dr J. B. de Spix.... Monachii*. Part 1, i–xvi + i–ii + 1–82, pls. 1–48; Part 2, 83–138, pls. 49–101.
- Steindachner, F. (1866) Zur Fischfauna von Port Jackson in Australien. *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften Mathematisch-Naturwissenschaftliche Classe*, 53, 424–481, pls. 1–7.
- Steindachner, F. (1870) Ichthyologische Notizen (X). *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften Mathematisch-Naturwissenschaftliche Classe*, 61, 623–642, pls. 1–5.
- Steindachner, F. (1876) Ichthyologische Beiträge (V). [Subtitles i–v.]. *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften Mathematisch-Naturwissenschaftliche Classe*, 74, 49–240, pls. 1–15.
- Steindachner, F. (1896) Bericht über die während der Reise Sr. Maj. Schiff "Aurora" von Dr. C. Ritter v. Microszewski in den Jahren 1895 und 1896, gesammelten Fische. *Annalen des Naturhistorischen Museums in Wien*, 11, 197–230, pl. 4.
- Steindachner, F. (1900) Fische aus dem Stillen Ocean. Ergebnisse einer Reise nach dem Pacific (Schauinsland, 1896–1897). *Anzeiger der Akademie der Wissenschaften in Wien*, 16, 174–178.
- Steindachner, F. (1906) Über eine neue Gattung und Art aus der Familie der Muraeniden, zunächst verwandt mit *Nettastoma*, und benennt dieselbe *Nettastomops barbatula*. *Anzeiger der Akademie der Wissenschaften in Wien*, 1906, 299–300.
- Strömman, P.H. (1896) *Leptocephalids in the University Zoological Museum at Uppsala*. Almqvist & Wiksell, Uppsala. 1–53, pls. 1–5.
- Suckow, G.A. (1799) *Anfangsgründe der theoretischen und angewandten. Naturgeschichte der Thiere*. 4 vols. Leipzig. vol. 4.
- Tanaka, S. (1908) Notes on some Japanese fishes, with descriptions of fourteen new species. *Journal of the College of Science, Imperial University of Tokyo*, 23 (art. 7), 1–54, pls. 1–4.
- Tanaka, S. (1911, 15 June) *Figures and descriptions of the fishes of Japan, including Riukiu Islands, Bonin Islands, Formosa, Kurile Islands, Korea and southern Sakhalin*, 2, 19–34, pls. 6–10.
- Tanaka, S. (1918) Two new species of Japanese fishes. *Dobutsugaku Zasshi (Zoological Magazine)*, 30, 51–52.
- Temminck, C.J. & Schlegel H. (1846) Pisces. In: *Fauna Japonica*. . . P. F. de Seibold. Parts 10–14: 173–269.
- Tommasi, L.R. (1960, 1 Dec.) Sobre tres *Leptocephalus* del plancton brasileño colectados por el "NE Almirante Saldanha." *Neotropica*, 6, 91–94.
- Vaillant, L.L. & Sauvage H.E. (1875) Note sur quelques espèces nouvelles de poissons des îles Sandwich. *Revue et Magasin de Zoologie (Ser. 3)*, 3, 278–287.
- Valenciennes, A. (1846) Table + Ichthyology Pls. 1–10. In, A. du Petit-Thouars. *Atlas de Zoologie. Voyage autour du monde sur la frégate "Vénus," pendant les années 1836–1839*.
- Wahlert, G. von (1955) Die Typen und Typoide des Übersee-Museums Bremen, 2: Pisces. *Veröffentlichungen aus dem Überseemuseum Bremen, Reihe A, Naturwissenschaften*, 2 (no. 5), 323–326.
- Waite, E. R. (1904, 11 Mar.) Additions to the fish fauna of Lord Howe Island, No. 4. *Records of the Australian Museum*, 5, 135–186, pls. 17–24.
- Walbaum, J.J. (1792) *Petri Artedi sueci genera piscium in quibus systema totum ichthyologiae proponitur cum classibus, ordinibus, generum characteribus, specierum differentiis, observationibus plurimis. Redactis speciebus 242 ad genera 52. Ichthyologiae, pars iii*. Ant. Ferdin. Rose, Grypeswaldiae [Greifswald]. pt. 3, 1–723, pls. 1–3.
- Weber, M. (1913) *Die Fische der Siboga-Expedition*. E. J. Brill, Leiden. xii + 710 pp., 12 pls.
- Weber, M. & de Beaufort L. F. (1916) *The fishes of the Indo-Australian Archipelago. III. Ostariophysi, II Cyprinoidea, Apodes, Synbranchi*. E. J. Brill, Leiden. 3, xv + 455 pp.
- Wheeler, A. (1991) The Linnaean fish collection in the Zoological Museum of the University of Uppsala. *Zoological Journal of the Linnean Society*, 103, 145–195.
- Whitley, G.P. (1931, 13 Feb.) New names for Australian fishes. *Australian Zoologist*, 6, 310–334, pls. 25–27.
- Whitley, G.P. (1932a, 27 Feb.) Fishes. *Scientific Report of Great Barrier Reef Expedition*, 4, 267–316, pls. 1–4.
- Whitley, G.P. (1932b, 20 Apr.) Studies in ichthyology. No. 6. *Records of the Australian Museum*, 18, 321–348, pls. 36–39.
- Whitley, G.P. (1934, 26 Mar.) Studies in ichthyology. No. 8. *Records of the Australian Museum*, 19, 153–163.
- Whitley, G.P. (1937, 12 Mar.) The Middleton and Elizabeth reefs, South Pacific Ocean. *Australian Zoologist*, 8, 199–231, pls. 13–17.
- Whitley, G.P. (1948, 30 June) Studies in ichthyology. No. 13. *Records of the Australian Museum*, 22, 70–94.
- Whitley, G.P. (1968, Jan.) Some fishes from New South Wales. *Proceedings of the Royal Zoological Society of New South Wales*, 1966–67, 32–40, pls. 8–9.
- Whitley, G.P. & Colefax A.N. (1938, 15 Sept.) Fishes from Nauru, Gilbert Islands, Oceania. *Proceedings of the Linnaean Society of New South Wales*, (pts. 3–4), 282–304, pl. 14.
- Whitley, G.P. & Phillipps, W.J. (1939, Sept.) Descriptive notes on some New Zealand fishes. *Transactions and Proceedings of the Royal Society of New Zealand*, 69, 228–236, 2 pls.